

BECHTEL HANFORD, INC.

EXHIBIT "B"

CONSTRUCTION SUBCONTRACT SPECIAL CONDITIONS

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EXHIBIT "B"

CONSTRUCTION SUBCONTRACT SPECIAL CONDITIONS

SC-1 DEFINITIONS

OWNER means the United States Department of Energy or Government.

CONTRACTOR means Bechtel Hanford, Inc. and all of its authorized representatives acting in their professional capacities.

SUBCONTRACTOR means the company, corporation, partnership, individual, or other entity to which this Subcontract is issued, its authorized representatives, successors, and permitted assigns.

RL means the DOE Richland Operations Office or Government.

"Project" means the Environmental Remediation Project for OWNER under Prime Contract No. DE-AC06-93RL12367 located at the Hanford Reservation near Richland, Washington for which the Work under this Subcontract is being performed.

"Work" means all activities required by the Subcontract Documents to be performed by SUBCONTRACTOR.

"Jobsite" or "Site" means the location at which the construction activity shall be performed under this Subcontract.

"Subcontract Documents" means the Subcontract Agreement Form and all documents listed therein.

"Subcontract Schedule" means the time period set forth for performance of the Work under this Subcontract.

SC-2 INSURANCE

Unless otherwise specified in this Subcontract, SUBCONTRACTOR shall, at its sole expense, maintain in effect at all times during the performance of the Work insurance coverage with limits not less than those set forth below with insurers and under forms of policies satisfactory to CONTRACTOR. SUBCONTRACTOR shall deliver to CONTRACTOR no later than seven (7) calendar days after Subcontract award, but in any event prior to commencing the Work or entering the Jobsite, certificates of insurance as evidence that policies providing such coverage and limits of insurance are in full force and effect. Certificates shall be issued in the form provided by CONTRACTOR or if none is provided, in a form acceptable to CONTRACTOR and provide that not less than thirty (30) calendar days, advance written notice will be given to CONTRACTOR prior to cancellation, termination, or material alteration of said policies of insurance. Certificates shall identify on their face the PROJECT NAME and the applicable SUBCONTRACT NUMBER.

A. Standard Coverage:

- (1) If there is an exposure of injury to SUBCONTRACTOR'S employees under the *U.S. Longshoremen's and Harbor Worker's Compensation Act*, the *Jones Act* or under laws, regulations or statutes applicable to maritime employees, coverage shall be included for such injuries or claims.
- (2) Employer's Liability of not less than:

\$1,000,000 each accident.
- (3) General Liability Insurance
 - (a) Coverage

SUBCONTRACTOR shall carry Commercial General Liability Insurance covering all operations by or on behalf of SUBCONTRACTOR providing insurance for bodily injury liability and property damage liability for the limits of liability indicated below and including coverage for:

SC-2 INSURANCE - (Continued)

- (i) Premises and Operations;
- (ii) Products and Completed Operations;
- (iii) Contractual Liability insuring the indemnity agreement in the General Condition titled "INDEMNITY;"
- (iv) Broad form Property Damage (including Completed Operations);
- (v) Explosion, Collapse and Underground Hazards; and
- (vi) Personal Injury Liability.

The Commercial General Liability insurance shall be the Occurrence Coverage Form.

(b) Policy Limits

For SUBCONTRACTOR'S Commercial General Liability Insurance, the limits of liability for bodily injury, property damage, and personal injury shall be not less than:

\$2,000,000	Combined single limit for Bodily Injury and Property Damage each occurrence;
\$2,000,000	Personal Injury Limit each occurrence;
\$4,000,000	Products-Completed Operations Annual Aggregate Limit; and
\$4,000,000	General Annual Aggregate Limit (other than Products-Completed Operations).

If the policy does not have an endorsement providing the General Annual Aggregate limits are as indicated above, SUBCONTRACTOR shall provide an endorsement entitled "Amendment of Limits of Insurance (Designated Project or Premises)." Such endorsement shall provide for a Products-Completed Operations Annual Aggregate Limit of not less than \$2,000,000 and a General Annual Aggregate Limit of not less than \$5,000,000. The required limits may be satisfied by a combination of a primary policy and an excess or umbrella policy.

(c) Additional Insureds

- (i) CONTRACTOR and OWNER, their subsidiaries and affiliates, and the officers, directors, and employees of the foregoing shall be named as Additional Insured under the Commercial General Liability Insurance policy, but only with respect to liability arising out of the operations for CONTRACTOR and OWNER by or for SUBCONTRACTOR. **In the United States Insurance Services Office (ISO) form CG 20 10 10 93 shall be attached to the policy.** Such insurance shall include an Insurer's waiver of subrogation in favor of the Additional Insureds, be primary as regards any other coverage maintained for or by the Additional Insureds, and shall contain a cross-liability or severability of interest clause.
- (ii) In lieu of naming CONTRACTOR and OWNER as Additional Insureds under the Commercial General Liability policy, SUBCONTRACTOR **may, at CONTRACTOR'S sole discretion and not as an option** provide Owners and Contractors Protective Liability Insurance. If SUBCONTRACTOR carries Owners and Contractors Protective Liability Insurance, the policy shall have a combined single limit for Bodily Injury or Property Damage of not less than:

\$2,000,000 Each Occurrence and
\$2,000,000 Annual Aggregate

If the policy covers more than one project, this Subcontract (the Work) shall be designated in the Policy Declarations.

SC-2 INSURANCE - (Continued)

The policy shall name CONTRACTOR and OWNER, their officers, directors, and employees as Named Insured.

- (4) Automobile Liability Insurance, including coverage for the operation of any vehicle, to include, but not limited to, owned, hired, and non-owned.

The combined single limit for Bodily Injury and Property Damage Liability shall be not less than \$2,000,000 for any one accident or loss. The required limits may be satisfied by a combination of a primary policy and an excess or umbrella policy.

SUBCONTRACTOR'S Automobile Liability Insurance shall include coverage for Automobile Contractual Liability.

- (5) In the event SUBCONTRACTOR maintains insurance covering loss or damage to equipment, tools or any other property of SUBCONTRACTOR such insurance shall include an Insurer's waiver of subrogation in favor of CONTRACTOR and OWNER and their subsidiaries and affiliates.

B. Special Operations Coverage

Should any of the Work:

- (1) Involve marine operations, SUBCONTRACTOR shall provide or have provided coverage for liabilities arising out of such marine operations, including contractual liability under its Commercial General Liability Insurance or Marine Hull and Machinery Insurance and Protection, and Indemnity Insurance, plus \$5,000,000 bodily injury and property damage liability. In the event such marine operations involve any SUBCONTRACTOR owned, hired, chartered, or operated vessels, barges, tugs or other marine equipment, SUBCONTRACTOR agrees to provide or have provided Marine Hull and Machinery Insurance and Protection and Indemnity Insurance and/or Charterer's Liability Insurance. The combined limit of the Protection and Indemnity Insurance and/or Charterer's Liability Insurance shall be no less than the market value of the vessel. The Protection and Indemnity and/or Charterer's liability and the Hull and Machinery coverages shall include coverage for contractual liability, wreck removal, Tower's liability if applicable; and full collision coverage and shall be endorsed:
- (a) To provide full coverage to CONTRACTOR and OWNER and their subsidiaries and affiliates as Additional Insureds without limiting coverage to liability "as owner of the vessel" and to delete any "as owner" clause or other language that would limit coverage to liability of an insured "as owner of the vessel;" and
- (b) To waive any limit to full coverage for the Additional Insureds provided by any applicable liability statute.

All marine insurances provided by SUBCONTRACTOR shall include an Insurer's waiver of subrogation in favor of the Additional Insureds.

- (2) Involve the hauling and/or rigging of property in excess of \$300,000, SUBCONTRACTOR shall also carry "All Risk" Transit Insurance, or "All Risk" Motor Truck Cargo Insurance, or such similar form of insurance that will insure against physical loss or damage to the property being transported, moved or handled by SUBCONTRACTOR pursuant to the terms of this Subcontract.
- (3) Such insurance shall provide a limit of not less than the replacement cost of the highest value being moved shall insure the interest of SUBCONTRACTOR, CONTRACTOR, OWNER and the subsidiaries and affiliates of CONTRACTOR and OWNER as their respective interests may appear and shall include an insurer's waiver of subrogation rights in favor of each.
- (4) Involve aircraft (fixed wing or helicopter) owned, operated, or chartered by the SUBCONTRACTOR, liability arising out of such aircraft shall be insured for a combined single limit not less than \$10,000,000 each

SC-2 INSURANCE - (Continued)

occurrence and such limit shall apply to Bodily Injury (including passengers) and Property Damage Liability. Such insurance shall name CONTRACTOR and OWNER and their subsidiaries and affiliates as Additional Insureds, include an Insurer's waiver of subrogation in favor of the Additional Insureds, state that it is primary insurance as regards the Additional Insureds and contain a cross-liability or severability of interest clause. If the aircraft hull is insured, such insurance shall provide for an insurer's waiver of subrogation rights in favor of CONTRACTOR and OWNER and their subsidiaries and affiliates. In the event SUBCONTRACTOR charters aircraft, the foregoing insurance and evidence of insurance may be furnished by the owner of the chartered aircraft, provided the above requirements are met.

- (5) Involve investigation, removal or remedial action concerning the actual or threatened escape of hazardous substances, SUBCONTRACTOR shall also carry Pollution Liability Insurance in an amount not less than \$2,000,000 per occurrence/annual aggregate. Such insurance shall provide coverage for both sudden and gradual occurrences arising from the Work performed under this Subcontract. If Completed Operations is limited in the policy, such Completed Operations Coverage shall be for a period of not less than five (5) years. Such insurance shall include a three (3) year extended discovery period and shall name CONTRACTOR and OWNER and their subsidiaries and affiliates as Additional Insureds.
- (6) Involve inspection, handling, or removal of asbestos, SUBCONTRACTOR shall also carry Asbestos Liability Insurance in an amount not less than \$2,000,000 per occurrence/annual aggregate. The policy shall be written on an "Occurrence Basis" with no sunset clause. Such insurance shall name CONTRACTOR and OWNER and their subsidiaries and affiliates as Additional Insureds.
- (7) Involve transporting hazardous substances, SUBCONTRACTOR shall also carry Business Automobile Insurance covering liability arising out of the transportation of hazardous materials in an amount not less than \$2,000,000 per occurrence. Such policy shall include Motor Carrier Endorsement MCS-90. NEITHER CONTRACTOR NOR OWNER IS TO BE NAMED AN ADDITIONAL INSURED FOR THIS POLICY.
- (8) Involve treatment, storage, or disposal of hazardous waste, SUBCONTRACTOR shall furnish an insurance certificate from the designated disposal facility establishing that the facility operator maintains current Environmental Liability Insurance in the amount of not less than \$5,000,000 per occurrence/annual aggregate.

C. Related Obligations

- (1) The requirements contained herein as to types and limits, as well as CONTRACTOR'S approval of insurance coverage to be maintained by SUBCONTRACTOR, are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by SUBCONTRACTOR under this Subcontract.
- (2) The Certificates of Insurance must provide clear evidence that SUBCONTRACTOR'S Insurance Policies contain the minimum limits of coverage and the special provisions prescribed in this clause.

D. CONTRACTOR or OWNER Furnished Insurance:

Neither CONTRACTOR nor OWNER is maintaining any insurance on behalf of SUBCONTRACTOR covering against loss or damage to the Work or to any other property of SUBCONTRACTOR unless otherwise specifically stated herein and as may be described by appendix hereto.

E. Notifications

In accordance with the submittal requirements outlined above, SUBCONTRACTOR shall deliver the original and two (2) copies of the Certificate(s) of Insurance required by this clause and all subsequent notices of cancellation, termination, and alteration of such policies to:

Bechtel Hanford, Inc.
3350 George Washington Way
Richland, WA 99352
Attention: D. M. Perry, H0-04
Reference: Subcontract No. 0100N-SC-G0058

SC-3 WORKERS' COMPENSATION REPORTING REQUIREMENTS

Subcontractors will be required to provide workers' compensation in accordance with the statutes of the State of Washington (Title 51, Revised Code of Washington) for performance of work under this Subcontract at the Hanford Site, including work subcontracted. SUBCONTRACTOR shall be responsible for making all payments and submitting all reports required by Title 51, Section 51.32.073, Revised Code of Washington.

SC-4 CONTRACTOR-FURNISHED SPECIFICATIONS AND DRAWINGS

CONTRACTOR will furnish specifications and prints of engineering design drawings for each part of the Work under this Subcontract. Such drawings will give information required to prepare shop detail drawings by SUBCONTRACTOR.

SUBCONTRACTOR shall, immediately upon receipt thereof, check all specifications and drawings furnished and shall promptly notify CONTRACTOR in writing of any omissions or discrepancies in such specifications or drawings.

All specifications and drawings listed in Exhibit "E" SPECIFICATIONS and Exhibit "F" DRAWINGS are part of this Subcontract. "Issued for Construction" (IFC) specifications and drawings will be issued after award. SUBCONTRACTOR shall perform Work only in accordance with specifications and drawings marked IFC. Such IFC specifications and drawings may be revised and will be issued by a Subcontract Change Notice to accommodate changes, and upon issuance will become a part of the Subcontract, superseding or supplementing the original Subcontract specifications and drawings. If SUBCONTRACTOR considers such issue to be a change affecting cost or schedule, SUBCONTRACTOR must request an equitable adjustment in accordance with the General Condition titled "CHANGES."

SUBCONTRACTOR shall perform Work only in accordance with IFC specifications and drawings and any subsequent revisions thereto, and with CONTRACTOR reviewed specifications and drawings submitted by SUBCONTRACTOR in accordance with the Special Condition titled "SUBCONTRACTOR-FURNISHED DRAWINGS, DATA AND SAMPLES."

Two (2) copies of such IFC specifications and one (1) full size reproducible of such IFC drawings will be furnished to SUBCONTRACTOR without charge. Any additional copies of such specifications and drawings will, upon SUBCONTRACTOR'S request, be furnished to SUBCONTRACTOR at the actual cost thereof.

SC-5 CONTRACTOR-FURNISHED UTILITIES AND FACILITIES

A. Utilities. The utilities listed below will be furnished by CONTRACTOR without cost to SUBCONTRACTOR, provided that all such utilities will be furnished at outlets existing on the Jobsite and SUBCONTRACTOR shall, at its expense, extend such utilities from said outlets to points of use and, at completion of all the Work, remove all materials and equipment used for such extensions.

- (a) Water for construction - The CONTRACTOR will provide nonpotable water from an existing fire water hydrant (1,000 GPM at 100 PSI) as shown in Exhibit "F" Drawings. The SUBCONTRACTOR shall supply all materials and equipment required to receive water from an existing fire water line. The SUBCONTRACTOR is required to furnish all materials and equipment required to supply construction water to the construction sites.
- (b) Potable water - The CONTRACTOR will provide bottled and bulk delivery of potable water to the CONTRACTOR'S and SUBCONTRACTOR'S facilities. However, the SUBCONTRACTOR will be responsible for furnishing dispensers, one in each trailer, for the 5-gallon bottled containers of drinking water and a holding tank, if needed, to receive the bulk water for showers, toilets, etc.
- (c) Electrical Services Provided: The following electrical services will be provided for SUBCONTRACTOR use. Locations for services are as indicated on Project drawings. All electrical service provided is 120/240 volt, single phase.
 - Survey Station - 200 amps
 - CONTRACTOR Access Station - 60 amps
 - Conference Trailer - 200 amps

SC-5 CONTRACTOR-FURNISHED UTILITIES AND FACILITIES - (Continued)

B. Facilities. The facilities listed below will be furnished by CONTRACTOR. Such facilities may be used by

SUBCONTRACTOR without charge, provided that any such use will be subject to written approval of CONTRACTOR.

- (a) Office Space – An existing Doublewide Trailer (MO-911), with ten separate office spaces will be supplied for SUBCONTRACTOR's office personnel. SUBCONTRACTOR's office personnel will be housed in MO-911 which is adjacent to CONTRACTOR's project site office. It is the responsibility of the SUBCONTRACTOR to provide all furniture, computers, and any other incidentals required to facilitate SUBCONTRACTOR's operation for the duration of the project.
- (b) Jobsite storage and staging area - The CONTRACTOR will designate an area near the operation for SUBCONTRACTOR storage and staging of equipment and materials. The SUBCONTRACTOR will be responsible for clearing, leveling, and security associated with the SUBCONTRACTOR storage and staging requirements.
- (c) Jobsite parking area - The CONTRACTOR will designate an area near the operation for SUBCONTRACTOR personnel vehicle parking. The SUBCONTRACTOR will be responsible for any leveling and maintenance of the parking area.
- (d) Telecommunication lines up to a maximum of 10 (local service only). SUBCONTRACTOR is responsible for providing all telecommunications equipment and long distance service.
- (e) Two-way radios at the CONTRACTOR access station for communication to CONTRACTOR construction office trailer.

SC-6 CONTRACTOR-FURNISHED MATERIALS AND EQUIPMENT

CONTRACTOR will furnish to SUBCONTRACTOR, at CONTRACTOR'S warehouse or Jobsite storage area, the items listed below to be incorporated into or used in performance of the Work under this Subcontract. Such items will be furnished, without cost to SUBCONTRACTOR, provided that SUBCONTRACTOR shall, at its expense, accept delivery thereof, load, unload, transport to points of use, and care for such items until final disposition thereof. At time of acceptance of any such item from CONTRACTOR, SUBCONTRACTOR shall sign a receipt. Signing of such receipt without reservation therein shall preclude any subsequent claim by SUBCONTRACTOR that any such items were received from CONTRACTOR in a damaged condition and with shortages. If at any time after acceptance of any such item from CONTRACTOR any such item is damaged, lost, stolen or destroyed, such item shall be repaired or replaced at the SUBCONTRACTOR'S Expense. Items required to be replaced may, at its option, be furnished by CONTRACTOR. Upon completion of all the Work under this Subcontract, SUBCONTRACTOR shall, at its expense, return all surplus and unused items to CONTRACTOR'S warehouse or Jobsite storage area.

CONTRACTOR will exert every reasonable effort to make available such materials and equipment so as to avoid delay in the progress of the Work. However, should CONTRACTOR, for any reason, fail to make available any such item and the result is a delay, SUBCONTRACTOR shall be entitled to no additional compensation or damages on account of such delay. The only adjustment that will be made will be the granting of an appropriate extension of time.

Materials to be furnished by CONTRACTOR:

- a) The CONTRACTOR will furnish railroad ties for vehicle stops that will be required to be placed in locations by SUBCONTRACTOR, as designated by CONTRACTOR.
- b) Roll-on/roll-off containers and roll-on/roll-off flats for hauling contaminated materials excavated from the waste sites will be supplied by CONTRACTOR. The SUBCONTRACTOR is required to supply transport/handling equipment compatible with CONTRACTOR provided containers and flats.
- c) Signs used for posting radiological areas.

SC-6 CONTRACTOR-FURNISHED MATERIALS AND EQUIPMENT – (Continued)

- d) The CONTRACTOR will supply 2,500 cubic meters of base course material from the ERDF stockpile (approximately 20 km from the project site), for construction of the Container Transfer Facility and haul roads. It is the responsibility of the SUBCONTRACTOR to load, haul, and place the base course material. SUBCONTRACTOR is required to obtain all base course material during site mobilization. CONTRACTOR will not guarantee the availability of material after site mobilization. Failure of the SUBCONTRACTOR to obtain the material during mobilization shall not result in any additional costs to the CONTRACTOR.

SC-7 CONTRACTOR-FURNISHED PERMITS

The General Condition titled "PERMITS AND LICENSES" notwithstanding, CONTRACTOR will without cost to SUBCONTRACTOR, furnish all permits required for Work on the Hanford Site. SUBCONTRACTOR shall, in accordance with said General Condition titled "PERMITS AND LICENSES," provide all other permits. All such CONTRACTOR-furnished permits are available for examination at the project office of CONTRACTOR during regular business hours.

SC-8 SUBCONTRACTOR-FURNISHED DRAWINGS, DATA AND SAMPLES

Review and permission to proceed by CONTRACTOR as stated in this Special Condition does not constitute acceptance or approval of design details, calculations, analyses, test methods, certificates, or materials developed or selected by SUBCONTRACTOR and does not relieve SUBCONTRACTOR from full compliance with contractual obligations. SUBCONTRACTOR shall submit drawings, data, samples, and other submittals in accordance with Exhibit "I," Subcontractor Submittal Requirements Summary, of this Subcontract. CONTRACTOR will require a fourteen (14) calendar day review period for all related drawings, data, samples, and other submittals.

Review and permission to proceed by CONTRACTOR, as stated in this Special Condition, does not constitute acceptance or approval of design details, calculations, analyses, test methods, certificates, or materials developed or selected by SUBCONTRACTOR and does not relieve SUBCONTRACTOR from full compliance with Subcontract requirements.

A. Construction Drawings

Where drawings are required for:

- (1) Fabrication of SUBCONTRACTOR-furnished equipment
- (2) Installing SUBCONTRACTOR-furnished material or equipment
- (3) Planning and performance of the Work under this Subcontract and Schedules

These drawings shall be prepared in accordance with the BHI procedure CADP-02 by the SUBCONTRACTOR and submitted by and at the expense of SUBCONTRACTOR before fabrication, installation or performance is commenced, allowing at least fourteen (14) calendar days for review by CONTRACTOR unless otherwise shown on the Subcontract Schedule. All drawings submitted for this purpose that are reviewed by CONTRACTOR, shall form a part of this Subcontract. Such drawings shall include, but not be limited to, matchmarks, erection diagrams and other details, such as field connections for proper installation, erection of the equipment, and performance of the Work.

The sequence of submission of all drawings shall be such that all information is available to review each drawing when it is received.

All drawings submitted by SUBCONTRACTOR shall be certified by SUBCONTRACTOR to be correct, shall show the Subcontract number, and shall be furnished in accordance with the Subcontract Submittal Requirements Summary (SSRS) form(s).

B. Samples

Where samples are required, they shall be submitted by and at the expense of SUBCONTRACTOR. Such submittals shall be made not less than thirty (30) calendar days before the materials represented by such samples are needed for incorporation into the Work. Samples shall be subject to review; acceptance and/or approval and materials represented by such samples shall not be manufactured, delivered to the Jobsite, or incorporated into the Work without such review.

SC-8 SUBCONTRACTOR-FURNISHED DRAWINGS, DATA AND SAMPLES – (Continued)

Each sample shall include a label showing SUBCONTRACTOR'S name, Project name, Subcontract number, name of

the item, manufacturer's name, brand name, model number, supplier's name, and reference to the appropriate drawing number, technical specification section and paragraph number, all as applicable.

Samples that have been reviewed may, at CONTRACTOR'S option, be returned to SUBCONTRACTOR for incorporation into the Work.

C. Data and Certificates

Where certificates are required, four (4) copies of each shall be submitted by and at the expense of SUBCONTRACTOR. Such submittal shall be made not less than thirty (30) calendar days before the materials represented by such certificates are needed for incorporation into the Work. Certificates shall be subject to review and material represented by such certificates shall not be fabricated, delivered to the Jobsite, or incorporated into the Work without such review.

Certificates shall clearly identify the material being certified and shall include, but not be limited to, providing the following information: SUBCONTRACTOR'S name, Project name, Subcontract number, name of the item, manufacturer's name, and reference to the appropriate drawing, technical specification section and paragraph number, all as applicable.

D. As-Built Drawings:

- (1) Progress As-Builts. During construction, the SUBCONTRACTOR will keep a marked-up-to-date set of progress as-built drawings on the job-site as an accurate record of all deviations between Work as shown on the IFC Drawings and Work as installed. These drawings shall be available to CONTRACTOR and OWNER for inspection at any time during regular business hours.
- (2) Final As-Builts. SUBCONTRACTOR shall, not later than thirty (30) calendar days from and after Final Acceptance and before Final Payment, furnish to CONTRACTOR, one (1) complete reproducible set and two copies each of marked-up final as-built drawings with AS-BUILT clearly printed on each sheet for all final work left in place. SUBCONTRACTOR shall accurately and neatly transfer all deviations from progress as-builts to final as-builts. As-built drawings shall be provided where specified and as required to reflect as-built conditions.

E. As-Built Specifications:

- (1) Progress As-Builts. During construction, the SUBCONTRACTOR shall keep a marked-up-to-date set on the job-site of progress as-built specifications annotated to clearly indicate all substitutions that are incorporated into the Work. Where selection of more than one product is specified, annotation shall show which product was installed. These specifications shall be available to CONTRACTOR and OWNER for inspection at any time during regular business hours.
- (2) Final As-Builts. SUBCONTRACTOR shall, not later than thirty (30) calendar days from and after Final Acceptance and before Final Payment furnish to CONTRACTOR two (2) complete sets of marked-up final as-built specifications with AS-BUILT clearly printed on the cover for all final work left in place. SUBCONTRACTOR shall accurately and neatly transfer all annotations from progress as-builts to final as-builts.

F. Electronic Files:

All as-builts must be prepared using acceptable and compatible software. Final as-built documents shall be delivered in the quantities specified above and accompanied by an electronic disc version.

- (1) Specifications: All textual material shall be converted to Word for Windows.

SC-8 SUBCONTRACTOR-FURNISHED DRAWINGS, DATA AND SAMPLES – (Continued)

- (2) Drawings: All design drawings will be prepared using the latest AutoCAD™ compatible format and shall have a .DWG extension. These drawings shall be prepared in accordance with procedure CADP-02 by the SUBCONTRACTOR.

SC-9 COMMENCEMENT, PROGRESS, AND COMPLETION OF THE WORK

SUBCONTRACTOR shall complete the Work under the Subcontract to meet the following Subcontract Milestone Dates.

The CONTRACTOR will issue to the SUBCONTRACTOR a separate Notice to Proceed (NTP) for separable work activities after receipt of the submittals identified in the Subcontract documents as being required prior to Work.

The Milestone Schedule below is based on current funding forecasts. Should additional funding become available after award, the CONTRACTOR reserves the right to authorize the SUBCONTRACTOR to proceed before the specified NTP date listed below. Should funding decrease after award, the CONTRACTOR reserves the right to authorize the SUBCONTRACTOR to delay the specified Subcontract NTP date. In any event, the Subcontract early start and/or delay shall not exceed ninety (90) calendar days. This early start and/or delay shall be performed at no additional cost to the CONTRACTOR. The CONTRACTOR will provide the SUBCONTRACTOR thirty (30) calendar days written notice instructing the SUBCONTRACTOR to proceed. This notice will define the early/delayed start dates and early/delayed finish dates; however, the overall project duration will not change.

100-N-1 TSD REMEDIAL ACTION PROJECT

ITEM NO.	MILESTONE DESCRIPTION	START	FINISH
1.	Notice of Award		04/13/00
2.	Notice to Proceed for Submittals	04/13/00	
3.	Site Preparations		06/08/00 NLT
4.	116-N-3 Crib Distribution System Grouting		06/30/00 NLT
5.	116-N-3 Trench (contaminated)	07/03/00 NET	09/29/00 NLT
6.	Excavation/loading of 19,200 tons of contaminated material		09/17/00 NLT
7.	116-N-3 Trench Demolition (uncontaminated)	08/01/00 NET	09/29/00 NLT
8.	116-N-3 Tie-in Structure	09/11/00 NET	09/29/00 NLT
9.	116-N-3 Crib Dismantlement and Excavation	10/02/00 NET	01/19/01 NLT
10.	116-N-3 Pipelines	01/20/01 NET	03/30/01 NLT
11.	116-N-3 By-Pass Structure	01/20/01 NET	03/30/01 NLT
12.	120-N-1 & 2, 100-N-58	10/02/00 NET	10/01/01 NLT
13.	116-N-1 Trench	04/02/01 NET	08/24/01 NLT
14.	116-N-1 Crib	08/26/01 NET	12/03/01 NLT
15.	116-N-1 Pipelines	12/04/01 NET	03/26/02 NLT
16.	Demobilization		04/23/02 NLT

NET – No Earlier Than

NLT – No Later Than

SUBCONTRACTOR shall give CONTRACTOR full information in advance as to its plans (resources, production rates, daily container requirements, logistics/methodology, requirement for Radiological Control Technicians (RCT's), CONTRACTOR deliverables) for performing each separable part of the Work. If at any time, SUBCONTRACTOR'S actual progress is inadequate to meet the requirements of this Subcontract, CONTRACTOR may notify SUBCONTRACTOR to take such steps as may be necessary to improve its progress. If within a reasonable period, as determined by CONTRACTOR, SUBCONTRACTOR does not improve performance to meet the Subcontract Milestones set forth above, CONTRACTOR may require an increase in SUBCONTRACTOR'S labor force, the number of shifts, overtime operations, additional days of work

SC-9 COMMENCEMENT, PROGRESS, AND COMPLETION OF THE WORK – (Continued)

per week, expedited shipment(s) of equipment and materials, and an increase in the amount of construction plant and equipment, all without additional cost to CONTRACTOR. Neither such notice nor CONTRACTOR'S failure to issue such notice shall not relieve SUBCONTRACTOR of its obligation to achieve the quality of work and rate of progress required by this Subcontract.

SCHEDULE ACTIVITIES FOR MILESTONES:

1. NOTICE OF AWARD:
 - Issue Notice of Award.
2. NOTICE TO PROCEED FOR SUBMITTALS:
 - Issue Notice to Proceed for Submittals required prior to the start of remedial action activities and mobilization.
3. SITE PREPARATIONS:
 - All activities required to support Readiness Assessment and start-up of remedial action activities.
4. 116-N-3 CRIB DISTRIBUTION SYSTEM GROUTING:
 - Core drill designated holes in pre-cast cover panels
 - Excavate to expose inlet pipe/install grout barrier in inlet pipe
 - Install grout distribution standpipes/nozzles (equipped with quick connects)
 - Placement of grout in approved sequence
 - Minimum twenty-eight (28) day cure period prior to removal
5. 116-N-3 TRENCH (CONTAMINATED):
 - Establish access control and haul routes for transport of containers
 - Set up access and dust suppression controls
 - In-place demolition of concrete structures (panels and supports)
 - Excavation of trench beginning at dam #1 and proceeding to tie-in structure
6. EXCAVATION/LOADING OF 19,200 TONS OF CONTAMINATED MATERIAL:
 - Excavation and loading of 19,200 tons (inch-pound system) of contaminated materials into containers for transport to ERDF for disposal.
7. 116-N-3 TRENCH DEMOLITION (UNCONTAMINATED):
 - Set up access and dust suppression controls
 - In-place demolition of concrete structures (export water line)
 - Backfill (structural) under export water line
 - Remove export water line structural support system
 - Place grout/concrete and place backfill over export water line
 - In-place demolition of concrete structures (panels and supports)
8. 116-N-3 TIE-IN STRUCTURE:
 - Set up access and dust suppression controls
 - In-place demolition of concrete structures
 - Excavation of soils/debris within the tie-in structure
9. 116-N-3 CRIB DISMANTLEMENT AND EXCAVATION:
Excavation of soils adjacent to crib perimeter
Quadrant Sequence (repeat for each quadrant)
 - Remove pre-cast panels and place soil
 - Remove pre-cast girders
 - Remove concrete supports/footers
 - Cutting of distribution trough
 - Remove sections of distribution trough and place soil
 - Excavation of soils/debris and distribution laterals

SC-9 COMMENCEMENT, PROGRESS, AND COMPLETION OF THE WORK – (Continued)

10. 116-N-3 PIPELINES:
 - Establish access control and haul routes for transport of containers
 - Set up access and dust suppression controls
 - Excavate overburden from pipeline corridor
 - Excavate and containerize identified contaminated material
 - Remove contaminated pipe and associated abandoned interference
11. 116-N-3 BY-PASS STRUCTURE:
 - Establish access control and haul routes for transport of containers
 - Set up access and dust suppression controls
 - In-place demolition of concrete by-pass structures
 - Excavation of debris from trench
 - Excavate and containerize identified contaminated material
12. 120-N-1 & 2, 100-N-58:
 - Remove sample shed and perimeter fence
 - Remove liner and transport to designated landfill
 - Remove Leachate collection system and transport to designated landfill
 - Remove all associated piping up to manhole
13. 116-N-1 TRENCH:
 - Establish access control and haul routes for transport of containers
 - Set up access and dust suppression controls
 - In-place demolition of concrete structures (panels and supports)
 - Excavation of trench beginning at the north end proceeding to crib
14. 116-N-1 CRIB:
 - Establish access control and haul routes for transport of containers
 - Set up access and dust suppression controls
 - Excavation of soils/debris (includes pipe systems within excavation limits)
15. 116-N-1 PIPELINES
 - Establish access control and haul routes for transport of containers
 - Set up access and dust suppression controls
 - Excavate overburden from pipeline corridor
 - Active utility interference support/protection
 - Excavate and containerize identified contaminated material
 - Remove contaminated pipe and associated abandoned interference's
 - Size Reduction of pipe
16. DEMOBILIZATION
 - Complete demobilization of SUBCONTRACTOR

(NOTE: At completion of each activity, SUBCONTRACTOR shall remove all equipment, debris, and leave the site in a safe and orderly condition.)

SUBCONTRACTOR shall request CONTRACTOR'S approval prior to any schedule revisions. Disposal of contaminated materials placed into Environmental Restoration Disposal Facility (ERDF) is monitored by the CONTRACTOR, and as such, may require adjustment to the SUBCONTRACTOR'S production rates and/or provides a basis for evaluating the SUBCONTRACTOR'S request for any changes in production rates.

Noncompliance with CONTRACTOR'S instructions shall be grounds for CONTRACTOR'S determination that SUBCONTRACTOR is not prosecuting the Work with such diligence as will assure completion within the times specified. Upon such determination, CONTRACTOR may terminate this Subcontract pursuant to the General Condition clause titled "TERMINATION FOR DEFAULT."

SC-10 SUBCONTRACT SCHEDULE

SUBCONTRACTOR shall, within fourteen (14) calendar days of Subcontract award, submit to CONTRACTOR for approval the Subcontract Schedule consisting of a detailed construction schedule meeting the milestone dates established in the Special Condition titled "COMMENCEMENT, PROGRESS, AND COMPLETION OF THE WORK." This approved Subcontract schedule is the Project Baseline Schedule. No progress payments will be made until the SUBCONTRACTOR'S schedule has been accepted by the CONTRACTOR and annotated as a Status "1". The Subcontract Schedule shall be based on a critical path analysis of construction activities and sequence of operations needed for the orderly performance and completion of any separable parts of and all the Work in accordance with this Subcontract. The Subcontract Schedule shall be a resource loaded Critical Path Method (CPM) type in the form of a precedence diagram and activity listing. The network diagram shall show in detail and in order of sequence, all activities, their descriptions, durations, production rate variances and dependencies, necessary and required to complete the Work, and any separable parts thereof. The activity listing shall show the following information for each activity on the network diagram:

Identification by activity numbers and descriptions

Duration with production rates for each waste site for excavation, pipeline removal, and all separable work activities

Craft and equipment resource loaded activity sheets for Project Baseline Schedule

Early start and finish dates

Late start and finish dates

Identify any float time

Identify and describe any suspension of work, if applicable

The Subcontract Schedule shall be complete in all respects, covering in addition to activities at the Jobsite, off-site activities such as planning, design, fabrication, procurement, and jobsite delivery of SUBCONTRACTOR-furnished equipment.. SUBCONTRACTOR'S schedule shall reflect continuous work activities indirectly and directly in the performance of this Subcontract absent any planned down periods for excavation and material handling activities associated with contaminated material shipped to ERDF for disposal.

SUBCONTRACTOR shall include the following premises when determining work activity durations:

- A. CONTRACTOR anticipates providing on-site a container inventory of 35 containers (FY00) and 55 containers for the remainder of the Subcontract performance period during the excavation and demolition of contaminated material (soil/debris), excluding pipelines. During the pipeline removal phase, the CONTRACTOR will coordinate the necessary inventory of containers based upon the SUBCONTRACTOR'S project schedule (Status 1). At no time during the pipeline removal phase will CONTRACTOR provide or transport containers in excess of the limits specified within.

CONTRACTOR will transport, as required, CONTRACTOR supplied roll-on/roll-off containers up to a total of 25 containers (FY00) and 45 containers (FY01 and beyond) daily to/from the Container Transfer Facility for the remainder of the Subcontract performance period for disposal at the Environmental Restoration Disposal Facility (ERDF). Transportation of intact cover panels or oversized material utilizing SUBCONTRACTOR'S equipment are not considered part of the 25/45 transport limit. It is anticipated that the SUBCONTRACTOR will not be loading contaminated material on a daily basis.

- B. SUBCONTRACTOR will be expected to perform in accordance with the SUBCONTRACTOR'S Subcontract Schedule, which details in part, the SUBCONTRACTOR'S container requirements and CONTRACTOR'S commitment. Any significant deviations from the SUBCONTRACTOR'S scheduled container requirements shall be coordinated to minimize any impacts.
- C. SUBCONTRACTOR shall minimize the scheduling of daily production rates and/or containers at the maximum level, due to the CONTRACTOR'S ability to deliver containers beyond the maximum daily production rates/containers (upper limit) specified;
- D. To allow a continuous turnaround of available containers from the waste disposal facility, steel and hard debris are disposed of at ERDF at a minimum container ratio of 8 soil containers to 1 debris container (e.g., steel, pipe, structural components, valves). SUBCONTRACTOR must coordinate with CONTRACTOR and include provisions for staging and/or double handling of material (minimize) to support the appropriate ratio of containers delivered to ERDF;

SC-10 SUBCONTRACT SCHEDULE – (Continued)

- E. Activity durations should include, at a minimum, inclement weather disruption, work activity and inefficiencies, routine

equipment maintenance, housekeeping, unexpected equipment failure/downtime, radiological controls associated with elevated dose rates, and workforce replacement (training), and all other SUBCONTRACTOR risks;

- F. No shut down periods shall be allowed. SUBCONTRACTOR will schedule sequence and activity logistics to maintain and sustain a uniform workforce to complete all activities required by the Subcontract;
- G. SUBCONTRACTOR should anticipate variations in the frequency of containers delivered throughout the workday. These variations may prevent the filling of all containers in a single workday. The CONTRACTOR may work multiple shifts to deliver and pickup containers at various Hanford waste sites.
- H. SUBCONTRACTOR shall not perform concurrent remedial action activities on more than one major phase of work due to existing radiological inventories. The major phases of work are defined as 116-N-3 Crib, 116-N-3 Trench and Tie-in structure, 116-N-3 Pipe and By-Pass Structure, 116-N-1 Trench, 116-N-1 Crib and UPR-100-N-31, and 116-N-1 Pipe.
- I. The Subcontract schedule and all revisions must be submitted in an electronic format Primavera Project Planner, Version 2.0 or the latest industry version (WINDOWS). In addition, SUBCONTRACTOR shall submit a detailed narrative description of its plan in performing the Work to meet the Subcontract Schedule.
- J. SUBCONTRACTOR shall promptly inform CONTRACTOR of any proposed change in the Subcontract schedule and narrative and shall furnish CONTRACTOR with an updated revised Subcontract schedule and narrative within ten (10) calendar days after approval by CONTRACTOR of such change. The SUBCONTRACTOR'S initial approved baseline schedule, or subsequent approved revisions, will be used as the basis for all approved changes and schedule extensions by the CONTRACTOR. The revised schedule and narrative shall, as determined by CONTRACTOR, be sufficient to meet the requirements for the completion of the separable parts of any and all of the Work, as set forth in this Subcontract.

During the performance of the Work, SUBCONTRACTOR shall submit to CONTRACTOR periodic progress reports in duplicate on the actual progress. Such reports shall be furnished as CONTRACTOR may request. Such progress reports shall include the following:

- A. Monthly A copy of the Project Schedule (in hardcopy and on 3.5" disk) outlining progress to date and projections for the major phases of the Work, as compared to the currently approved baseline schedule. This schedule shall be submitted to CONTRACTOR no later than 5 working days beyond the previous month's end.
- B. Monthly A detailed written narrative report shall include the previous month's and upcoming month's activities and quantities installed on each major phase of Work, identification of problem areas and/or schedule variances. This report shall be submitted to CONTRACTOR no later than 5 working days beyond the previous month's end.
- C. Weekly A detailed eight (8) week look ahead schedule showing forecasted progress, production rates (including daily container count projections) and current progress of the work, and overtime durations required for equipment maintenance. This report shall be updated for the weekly status meeting with the CONTRACTOR. This eight week schedule must be consistent with and rolled out of the overall Project Schedule.
- D. Weekly A copy of the Project Schedule outlining progress to date for the major phases of the Work, as compared to scheduled progress. Schedule progress shall be measured using percent complete by task on the approved Project Schedule. Percent complete shall be estimated using a physical measure of work complete.
- E. Daily A daily report, at a minimum, listing all personnel by craft (labor hours) and equipment for Work performed, including weather conditions, quantities by site, containers loaded and transported, and any safety/radiological issues, shall be submitted by close of business the following day after work is completed.

SC-11 TEMPORARY ACCESS AND HAUL ROADS

SUBCONTRACTOR shall, at its expense, construct and maintain temporary access and haul roads as may be necessary for the proper performance of this Subcontract. SUBCONTRACTOR shall submit a layout of all proposed roads prior

to road construction. The layout shall show widths of roads, direction of traffic, curves, grades and related information in sufficient detail for review by CONTRACTOR. Roads constructed shall be subject to CONTRACTOR'S approval.

SUBCONTRACTOR maintained roads shall be left in good working condition, including but not limited to, elimination of potholes, uniformly graded for travel and drainage, and shoulders dressed at the completion of Work and prior to final payment.

SUBCONTRACTOR shall be responsible for removal of all snow, water, debris, and all other deleterious materials on the jobsite access roadways, as well as, parking lots and SUBCONTRACTOR's utilized roads, Container Transfer Facility, etc. until completion of the Work scope and final acceptance by the CONTRACTOR.

SC-12 SAFETY AND HEALTH PROGRAMS

In performance of the Work under this Subcontract, the SUBCONTRACTOR shall establish and maintain the following programs:

- A. A Safety and Health Program shall be submitted in writing to the CONTRACTOR for approval and coordination with other jobsite activities within thirty (30) calendar days of Subcontract award and in any event prior to commencing Work at the Jobsite. Such Program shall be commensurate with the Work and in conformance with the specific requirements of the CONTRACTOR'S and/or OWNERS Project Safety and Health Requirements (see Exhibit "G," ERC Subcontractor Safety and Health Requirements), and shall provide for:
- (1) Designation, in writing, of one or more qualified individuals as Safety Representative(s).
 - (2) Specific review and approval of all SUBCONTRACTOR and subtier work plans and methods by the SUBCONTRACTOR'S Safety Representative.
 - (3) Periodic inspection by the SUBCONTRACTOR's Safety Representative(s) of SUB-CONTRACTOR(s) work and storage areas to assure safe conditions and practices.
 - (4) Maintenance of records documenting Safety and Health training and qualifications, including medical records, for SUBCONTRACTOR personnel. The CONTRACTOR or OWNER may request documented evidence of training at any time.
 - (5) Immediate reporting to CONTRACTOR of any and all near misses, deaths, injuries, and damage to property.
 - (6) Full cooperation in the conduct of inspections by CONTRACTOR, OWNER, governmental agencies and other agencies of competent jurisdiction, e.g., Occupational Safety and Health Agency (OSHA), Environmental Protection Agency (EPA), Washington State Department of Ecology (WDOE). Copies of citation notices by such agencies shall be submitted to CONTRACTOR immediately upon receipt.
 - (7) Compliance with all applicable safety and health related laws and regulations and directives of governmental and other agencies of competent jurisdiction, e.g., OSHA.
 - (8) Use of safety equipment that meets applicable OSHA and/or ANSI requirements.
 - (9) Immediate correction by SUBCONTRACTOR of any unsafe conditions or unsafe acts by its employees.
 - (10) Conformance to the CONTRACTOR's Site Work Rules.
- B. SUBCONTRACTOR shall not subcontract with any entity whose safety ratings for the previous two (2) years exceeds the following:
- (1) Interstate EMR: 1.0
 - (2) State EMR: 1.0

SC-12 SAFETY AND HEALTH PROGRAMS – (Continued)

The SUBCONTRACTOR must notify CONTRACTOR immediately in writing, should SUBCONTRACTOR'S EMR rating exceed 1.0 during the performance of this Subcontract.

- C. SUBCONTRACTOR shall be subject to the policies, criteria, and procedures of 10 CFR part 707, Workplace Substance Abuse Programs at DOE Sites. SUBCONTRACTOR agrees to provide CONTRACTOR, within 30 days after notification of selection for award, or award of SUBCONTRACT, whichever comes first, SUBCONTRACTOR'S written workplace substance abuse program consistent with the requirements of 10 CFR part 707.
- D. A Security Program, shall be submitted in writing to the CONTRACTOR for approval and coordination with other Jobsite activities within thirty (30) days after Subcontract award, and in any event prior to commencing work at the Jobsite. Such programs shall be commensurate with the specific requirements of the CONTRACTOR'S AND/OR OWNER'S REQUIREMENTS (See Exhibit "G", ERC Subcontractor Safety and Health Requirements), and shall include:
- (1) Controlled access to office, warehouse, material and equipment sites.
 - (2) Accountability procedures for the requisition and issue of materials.
 - (3) Periodic security checks for all work areas assigned to SUBCONTRACTOR.
 - (4) Prompt reporting of incidents of loss, theft or vandalism to CONTRACTOR, subsequently detailed in writing.
 - (5) Coordination and compliance with Site security programs.
- E. "Foster Wheeler Environmental Corporation's Safety and Health Incentive Compensation and Distribution Plan:
- (1) The Project Manager will form a committee at the start of the project consisting of 2 FWENC professional project personnel and 2 FWENC project craft personnel appointed. Their objective will be to develop a procedure, evaluate, implement the plan and monitor the execution of the various aspects of the plan. The Site Health and Safety Officer will maintain performance records. Professional project personnel are not eligible for collection of these awards.
 - (2) Individual employee awards are distributed in 3 categories:
 - \$100 for each individual for every 10 submitted reports (verifiable) of near misses, identifies unsafe/hazardous conditions or behavior. We have specifically set aside \$2,500 for this purpose.
 - \$0.50 hr for each safe work hour, half paid on a regular (weekly or monthly) basis and half held "at risk" until end of employment when it will be awarded lump sum if no lost time incidents or recordables. We have specifically set aside \$20,000 for this purpose.
 - Spot awards given at random by the Project Manager (with suggestions from Site Superintendent, Site Health and Safety Officer, and the Radiation Control Engineer) consisting of valuable items and for cash for workers exhibiting safe job performance. We have specifically set aside \$2,500 for this purpose.
 - (3) ALARA Program awards for group performance:
 - \$1000 divided equally by on site workers for each quarterly total of Total Exposure of 750 mrem or less. We have specifically set aside \$8,000 for this purpose.
 - \$50 for each worker on site when a suggestion or change to ALARA plan presented by any craft person is approved and implemented. This includes use and type of tools and equipment, work sequence and positions or work approach. We have specifically set aside \$7,000 for this purpose.
 - Set aside approximately $\frac{1}{2}$ of the available ALARA incentive compensation for worker involvement incentives."

SC-13 EXPLOSIVES

Should explosives be deemed necessary under performance of this Subcontract, SUBCONTRACTOR shall adhere to the requirements as stipulated and outlined under "Exhibit G, ERC Subcontractor Safety and Health Requirements, GR-5,

Explosives.”

SC-14 PAYMENT AND PERFORMANCE BONDS

SUBCONTRACTOR shall furnish to CONTRACTOR a Performance Bond and a Payment Bond, both in the amount of 100% of the total Lump Sum Price of this Subcontract. SUBCONTRACTOR shall, within seven (7) calendar days after execution of this Subcontract, furnish to CONTRACTOR evidence of such bonds for all Work under this Subcontract. Payment and Performance Bonds shall be in a form and format and by a company or corporation acceptable to CONTRACTOR. Such acceptability is based, in part, upon the surety company being named in the Department of Treasury Circular 570, "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and Acceptable Reinsuring Companies." The cost of such bonds shall be included in the total lump sum bid price and unit rates in Exhibit "C," Form G.

SUBCONTRACTOR shall vary the value of such bonds, as necessary, and called for by the issuing surety to equal price adjustments made pursuant to the General Condition titled "CHANGES" and furnish to CONTRACTOR within seven (7) calendar days after execution of any resultant modification.

SC-15 MEASUREMENT FOR PAYMENT AND PAYMENT FOR WORK

For the purpose of arriving at agreement on the basis for progress payments for items bid as lump sum and/or unit rate, SUBCONTRACTOR shall, within fifteen (15) calendar days after award, submit a proposed breakdown of values by pay item of the various elements of the Work comprising the lump sum item. Such submittal shall also include a proposed schedule of monthly progress payments. The proposed breakdown and payment schedule shall be correlated with the schedule and reports required by the Special Condition entitled "SUBCONTRACT SCHEDULE." Such breakdown and payment schedule shall be subject to CONTRACTOR'S approval.

Estimates shall be prepared by SUBCONTRACTOR and submitted in writing for CONTRACTOR'S approval at the end of each month covering the amount and value of Work satisfactorily performed by SUBCONTRACTOR up to the date of such estimate. Such estimate may be made by strict measurement, or by estimate, or partly by one method and partly by another. Estimates

shall be based on cumulative total quantities of Work performed. Estimates may include materials or equipment not incorporated into the Work. The quantity of Work to be paid for under any item for which a unit price is fixed in this Subcontract shall be the amount or number, approved by CONTRACTOR, of units of Work satisfactorily completed in accordance with this Subcontract and computed in accordance with applicable measurement for payment provisions of this Subcontract.

SUBCONTRACTOR shall make all surveys necessary to determine all quantities of Work to be paid for under this Subcontract. Copies of field notes, computations, and other records made by SUBCONTRACTOR to determine quantities shall be furnished to CONTRACTOR upon request. SUBCONTRACTOR shall notify CONTRACTOR before such surveys are made.

CONTRACTOR, at its discretion, may arrange to have its representative witness and verify all surveys made by SUBCONTRACTOR to determine quantities of Work to be paid for under this Subcontract. Measurements and computations shall be made by such methods as CONTRACTOR may consider appropriate for the class of Work measured, and the estimate of quantities of Work completed shall be compatible with the reporting requirements required hereunder by the Special Condition titled "SUBCONTRACT SCHEDULE." The dividing limits, lines, or planes between adjacent items or classes of excavation, concrete, or other types of Work where not definitely indicated on the drawings or in the specifications, shall be as determined by CONTRACTOR.

Review by CONTRACTOR of SUBCONTRACTOR'S estimate of the amount and value of the Work performed will be within fifteen (15) calendar days of its receipt and a copy of the estimate, as approved, returned to SUBCONTRACTOR. SUBCONTRACTOR shall prepare and submit to CONTRACTOR an invoice in accordance with the estimate, as approved. SUBCONTRACTOR shall certify in each application for payment that there are no known outstanding mechanic's or material-men's liens, and that all due and payable bills have been paid or are included in the application for payment.

SC-15 MEASUREMENT FOR PAYMENT AND PAYMENT FOR WORK – (Continued)

Within thirty (30) calendar days after receipt of such invoice, CONTRACTOR will pay ninety percent (90%) of the approved invoice amount and the balance retained pending Final Acceptance as specified below.

CONTRACTOR may, as a condition precedent to any such payment to SUBCONTRACTOR, require SUBCONTRACTOR

to submit complete waivers and releases of any and all claims of any person, firm, or corporation in connection with or in any way related to the performance of this Subcontract. Upon request, SUBCONTRACTOR shall, in addition, furnish acceptable evidence that all such claims have been satisfied.

Any amounts otherwise payable under this Subcontract may be withheld or unpaid, in whole or in part, if:

- A. Any claims are filed against SUBCONTRACTOR by CONTRACTOR, OWNER or third parties, or if reasonable evidence indicates the probability of filing any such claims; or
- B. SUBCONTRACTOR is in default of any Subcontract condition including, without limitation, the schedule, quality, safety requirements, and ALARA Performance/PAAA penalties; or
- C. There is reasonable doubt that this Subcontract can be completed within the time specified or for the balance then unpaid; or
- D. SUBCONTRACTOR has not submitted:
 - (1) Schedules and progress reports as defined in the Special Condition titled "SUBCONTRACT SCHEDULE,"
 - (2) Proper insurance certificates, or not provided proper coverage or proof thereof,
 - (3) Its safety, security and fire prevention plans,
 - (4) Required Performance and Payment Bonds or CONTRACTOR approved equivalent securities,
 - (5) Certified copies of payroll records required that are up-to-date to within two (2) weeks of the date SUBCONTRACTOR submits any invoice for payment.

CONTRACTOR will pay such withheld payments if SUBCONTRACTOR:

- A. Pays, satisfies or discharges any claim/penalty of CONTRACTOR, OWNER, or third parties against SUBCONTRACTOR arising out of or in any way connected with this Subcontract or
- B. Cures all defaults in the performance of this Subcontract.

If claims filed against SUBCONTRACTOR connected with performance under this Subcontract are not promptly removed by SUBCONTRACTOR after receipt of written notice from CONTRACTOR to do so, CONTRACTOR may remove such claims and deduct all costs in connection with such removal from withheld payments or other monies due, or which may become due, to SUBCONTRACTOR. If the amount of such withheld payment or other monies due SUBCONTRACTOR under this Subcontract is insufficient to meet such costs, or if any claim against SUBCONTRACTOR is discharged by CONTRACTOR after final payment is made, SUBCONTRACTOR and its surety or sureties, if any, shall promptly pay CONTRACTOR all costs incurred thereby regardless of when such claim arose or whether such claim imposed a lien upon the Project or the real property upon which the Project is situated.

If a lien is filed, SUBCONTRACTOR shall remove the lien, or see that it is removed or shall furnish a bond for the full amount thereof within seven (7) calendar days of notice by CONTRACTOR. SUBCONTRACTOR shall obtain for itself legally effective waivers of lien and furnish same to CONTRACTOR with each application for payment. Failure to comply with the foregoing requirements shall constitute grounds for termination of this Subcontract in accordance with the General Condition titled "TERMINATION FOR DEFAULT."

Upon receipt by SUBCONTRACTOR of CONTRACTOR'S written notice of Final Acceptance of the Work under this Subcontract, SUBCONTRACTOR shall prepare an estimate in writing for CONTRACTOR'S approval of the amount and value of all Work satisfactorily completed under this Subcontract. Upon CONTRACTOR'S approval of such estimate, SUBCONTRACTOR shall prepare and submit its final invoice in accordance with the approved estimate. Unless otherwise specified by applicable law, CONTRACTOR shall, within sixty (60) calendar days following Final Acceptance and after submittal of such invoice, pay to SUBCONTRACTOR the amount then remaining due, provided that, SUBCONTRACTOR

SC-15 MEASUREMENT FOR PAYMENT AND PAYMENT FOR WORK – (Continued)

shall have furnished CONTRACTOR and OWNER for itself, its subcontractors, immediate and remote, and all material suppliers, vendors, laborers and other parties acting through or under it, waivers and releases of all claims against CONTRACTOR or OWNER arising under or by virtue of this Subcontract, except such claims, if any, as may with the consent of CONTRACTOR and OWNER be specifically excepted by SUBCONTRACTOR from the operation of the release in stated amounts to be set forth therein.

No payments of invoices or portions thereof shall at any time constitute approval or acceptance of Work under this Subcontract, nor be considered to be a waiver by CONTRACTOR or OWNER of any of the terms of this Subcontract. However, title to all material and equipment for which payment has been made, whether or not the same has been incorporated in the Work, and title to all completed Work whether paid for or not, shall vest in CONTRACTOR or OWNER as the case may be, and in any case shall not be part of SUBCONTRACTOR'S property or estate if SUBCONTRACTOR is adjudged bankrupt or makes a general assignment for the benefit of creditors, or if a receiver is appointed on account of SUBCONTRACTOR'S insolvency.

Invoices for monthly progress payments should be signed and submitted in a format prescribed by CONTRACTOR. SUBCONTRACTOR shall submit monthly and the final invoices in original and two (2) copies to:

Bechtel Hanford, Inc.
3350 George Washington Way
Richland, WA 99352
Attention: D. M. Perry, H0-04
Reference: Subcontract No. 0100N-SC-G0058

SC-16 PRICING OF ADJUSTMENTS

When costs are a factor in any determination of a Subcontract adjustment pursuant to the General Condition titled "CHANGES", or any other provision of this Subcontract unless excluded therein, such direct and indirect costs, upward or downward, for labor, equipment, and material necessary to perform the Work of the Change shall be determined in accordance with the following:

1. Determination of direct cost for changes involving added or deleted work shall be as follows:

- (a) For work performed outside of radiologically contaminated areas, direct labor hours necessary to perform the Work of the Change shall utilize and not exceed standards from the most recent edition of: (1) *"Process Plant Construction Estimating Standards"* (Richardson), published by Richardson Engineering Services, Inc.; (2) *"Building Construction Cost Data"* (Means), published by R. S. Means Company, Inc.; or (3) other CONTRACTOR approved data base as may have been previously developed by SUBCONTRACTOR.
- (b) For work performed in radiologically contaminated areas *requiring a personal protection level of A*, the same shall apply except that the direct labor hours shall be modified by the multiplier production factor as detailed in the table below. **Multiplier Factors are a maximum value and CONTRACTOR reserves the right to adjust these factors downward should site environmental conditions warrant such an adjustment.** *The direct labor hours necessary to perform the Work of the change in radiologically contaminated areas requiring personal protection levels of B, C, and D, shall utilize a database and format as developed by the SUBCONTRACTOR and approved by the CONTRACTOR.*

Level of Personal Protection Required (Ref. 29 CFR 1910.120)	Multiplier Factor
A	3.62

- (c) In addition to direct payroll costs, direct labor costs shall include payroll taxes and insurance, vacation allowance, subsistence, travel allowance, overtime premium, and any other payroll additives required to be paid by SUBCONTRACTOR by law or labor agreement(s) (e.g. Department of Labor Wage Determination, bargaining agreements such as the Hanford Site Stabilization Agreement, etc). Note: When using the Multiplier Factor of preceding paragraph (b), care must be taken to assure that the factor is applied only once to the direct labor hours.

SC-16 PRICING OF ADJUSTMENTS – (Continued)

- (d) Charges for labor furnished and used by SUBCONTRACTOR shall include all manual classifications up to and including foremen. Labor rates used to calculate the costs shall be those rates in effect during accomplishment of the change. Charges shall not be included for superintendents, assistant superintendents, general foremen, surveyors, office personnel, timekeepers and maintenance mechanics.

2. Determination of direct costs of equipment for changes involving added or deleted work shall be as follows:

- (a) Allowable equipment costs of SUBCONTRACTOR "owned" equipment will be computed by utilizing eighty

percent (80%) of the rates set forth in the most current "*Rental Rate Blue Book for Construction Equipment*" (hereinafter referred to as the Blue Book), Volumes 1, 2, & 3, published by Dataquest, Inc., as adjusted for age of equipment in Region "F" provided such rates exclude unallowable or unacceptable costs in accordance with FAR 31.105. Hourly Rates will be developed by using monthly rates divided by 176 hours. Should SUBCONTRACTOR obtain and "rent" equipment from a lower-tier subcontractor, SUBCONTRACTOR shall submit third party invoices substantiating actual costs billed and incurred by SUBCONTRACTOR for rental of the equipment. Should the equipment rental amount exceed 80% of the Rental Rate Blue Book for Construction Equipment, whichever is less, the lower rate shall apply. A total maximum mark-up of five percent (5%) only will be allowed and applied to actual invoice charges.

- (1) In-use or operating equipment rates will be developed by calculating the depreciation, major overhauls, and cost of facilities capital (Cfc) portion of the Blue Book rates. Blue Book indirect costs will not be allowed (they should be included in as indirect rates per paragraph 5 below). The estimated operating cost per hour for consumables, including but not limited to maintenance labor and parts, fuel, oil, filters, lubricants, and tires will be allowed.
 - (2) Stand-by equipment rates will be developed by calculating the Cfc portion and one-half the depreciation portion of the Blue Book rate element table allowance. Blue Book indirect costs and major overhaul costs will not be allowed. The estimated operating cost per hour for consumables, including but not necessarily limited to maintenance labor and parts, fuel, oil, filters, lubricants, and tires will not be included.
 - (b) Equipment costs of in-use or stand-by SUBCONTRACTOR rented equipment shall be computed as follows: CONTRACTOR shall develop "market rates" commensurate with rates from equipment rental firms for similar equipment within the area. Should SUBCONTRACTOR proposed rates not be comparative, CONTRACTOR reserves the right to delete unallowable charges.
 - (c) When the operated use of equipment is infrequent and, as determined by CONTRACTOR, such equipment need not remain at the site of the Work continuously, charges shall be limited to actual hours of use. Equipment not operating but retained at the jobsite at CONTRACTOR'S direction shall be charged at the standby rate. Equipment not operating but retained at the jobsite at the SUBCONTRACTOR'S discretion shall be at no additional cost to the CONTRACTOR.
3. Direct costs of materials for changes involving added or deleted work shall be determined in the following ways:
 - (a) From published supplier pricing data or written quotes from suppliers on specific items where published pricing data is not generally available (invoices from suppliers are acceptable); or
 - (b) From standards published in Richardson, Means, or other CONTRACTOR approved data previously developed by SUBCONTRACTOR if information identified in paragraph (a) above is not available.
 4. When pricing adjustments, the following are considered to be included as indirect costs and will not be considered for direct reimbursement: job-site office expenses, incidental job burdens, small tools, general site and home office overhead allocation, and costs for estimating the price of changed work.
 5. The following shall apply to determine the indirect cost portion of Subcontract Price adjustments. CONTRACTOR recognizes the most current and up-to-date Washington State business and occupation (B&O) tax rate as stipulated in RCW 82.04.263 as applicable to price adjustments to this Subcontract. Indirect rate allowances shall be determined for proposals above by application of the following:

SC-16 PRICING OF ADJUSTMENTS – (Continued)

- (1) SUBCONTRACTOR'S and lower-tier subcontractor's overhead and profit shall be considered to include the following: insurance cost; small tools having a purchase price of \$500.00 or less; incidental job burdens; general home office expenses commonly known as G&A; labor costs for project managers, engineers, supervisor (including QA and Safety), superintendents, assistant superintendents, general foremen, surveyors, office personnel, timekeepers and maintenance mechanics and, unless otherwise stated, no separate allowance will be made therefore; and costs of premium adjustments, consequent upon changes ordered, for Payment and Performance Bonds (allowable for SUBCONTRACTOR only).
- (2) Overhead and Profit allowance for SUBCONTRACTOR'S lower-tier subcontractors on work performed by

lower-tier subcontractors shall be calculated as follows: a maximum mark-up of ten percent (10%) shall be applied to the aggregate of subtier subcontractor charges less than or equal to \$25,000.00; a maximum mark-up of seven and one-half percent (7½%) shall be applied to the aggregate of subtier subcontractor charges greater than \$25,000.00 but less than or equal to \$500,000.00; a maximum mark-up of 5% (five percent) or \$100,000.00, whichever is less, shall be applied to the aggregate of subtier subcontractor charges greater than \$500,000.00.

- (3) For SUBCONTRACTOR performing the Work, overhead and profit on changes shall be calculated not to exceed the following: ten percent (10%) overhead and ten percent (10%) profit on total direct costs up to \$25,000.00; seven and one-half percent (7½%) overhead and seven and one-half percent (7½%) profit on total direct costs over \$25,000.00 but less than or equal to \$500,000.00; ten percent (10%) of total direct costs or \$100,000.00, whichever is less, for overhead and profit combined on total direct costs over \$500,000.00.
- (4) Overhead and profit shall be calculated utilizing the net increase in price of the change after deductions have been taken.
- (5) Credit for overhead and profit shall be included as part of the downward adjustment for a deductive change. Indirect rates in the paragraphs above are maximum rates and CONTRACTOR reserves the right to negotiate the indirect expense rates within the ceiling limitations.

SC-17 APPLICABLE LAW

Irrespective of the place of performance, the provisions in this Subcontract that adopt or adapt Federal Government acquisition regulations shall be construed and interpreted according to the federal common law of government contracts, as enunciated and applied by federal judicial bodies, boards of contracts appeals, and quasi-judicial agencies of the federal government. To the extent that the federal common law of government contracts is not dispositive, the laws of the State of Washington shall apply.

SC-18 NONDISCLOSURE

SUBCONTRACTOR agrees not to divulge to third parties, without the written consent of CONTRACTOR or OWNER, any information obtained from or through CONTRACTOR or OWNER in connection with the performance of this Subcontract unless:

- A. The information is known to SUBCONTRACTOR before obtaining the same from CONTRACTOR or OWNER;
- B. The information is, at the time of disclosure by SUBCONTRACTOR, then in the public domain; or
- C. The information is obtained by SUBCONTRACTOR from a third party who did not receive same, directly or indirectly from CONTRACTOR or OWNER and who has no obligation of secrecy with respect thereto.

SUBCONTRACTOR further agrees that it will not, without the prior written consent of CONTRACTOR or OWNER, disclose to any third party any information developed or obtained by SUBCONTRACTOR in the performance of this Subcontract except to the extent that such information falls within one of the categories described in (a), (b), or (c) above.

If so requested by CONTRACTOR or OWNER, SUBCONTRACTOR further agrees to require its employees to execute a nondisclosure agreement before performing any Work under this Subcontract.

SC-19 LIQUIDATED DAMAGES - NOT USED

SC-20 KEY PERSONNEL

CONTRACTOR reserves the right to approve all Key Personnel. SUBCONTRACTOR'S key personnel must be assigned full-time at the 100-N-1 TSD Site for this Subcontract exclusively and possess the minimum qualifications listed below. SUBCONTRACTOR shall not reassign or remove key personnel without prior written authorization of CONTRACTOR. Whenever, for any reason, one or more of these individuals are unavailable for assignment for Work under this Subcontract, any replacement key personnel shall possess the minimum qualifications and experience required for the positions outlined below. These positions must be four (4) separate individuals and cannot be combined.

Project Manager

- 15 Years General Construction Management Experience
- 5 Years at Project Management Level, of which three (3) years working with radiologically contaminated materials

Site Superintendent

- 15 Years Industrial Construction
- 5 Years of Supervisory Level, which shall include labor management associated with bargaining units
- 3 Years of supervising work involving radiologically contaminated materials

Site Health and Safety Officer

- 10 years general construction experience related to safety and health and industrial hygiene monitoring (reference Exhibit "G")
- 3 years radiological contamination control

Radiological Control Engineer

- 10 years radiological contamination control experience
- 3 years experience working with alpha contamination and working in radiation areas (5-100mr/hr).
- 3 years planning radiological work

When the CONTRACTOR finds that a correlation exists or appears to exist between a documented lack of SUBCONTRACTOR performance and a lack of SUBCONTRACTOR employee qualification and performance, the SUBCONTRACTOR agrees to immediately replace that individual with another employee with qualifications appropriate to the work being performed.

The CONTRACTOR may also require that the SUBCONTRACTOR remove from the job, at no additional cost to CONTRACTOR, employees who endanger persons or property, disruptive to the workforce, or whose continued employment under this Subcontract is inconsistent with the requirements of the Subcontract and/or interests of safety or security at the Hanford Site.

SC-21 AUTHORITY OF PERSONNEL

- A. The CONTRACTOR will designate a Subcontract Specialist who will be responsible for administering the Subcontract terms and conditions and who shall act as the CONTRACTOR'S authorized representative. Additionally, all correspondence shall be issued and received by the designated Subcontract Specialist or authorized designee. The only individual authorized to direct the SUBCONTRACTOR to deviate from the express, written terms of the Subcontract is the authorized Subcontract Specialist or authorized designee.

SC-21 AUTHORITY OF PERSONNEL– (Continued)

- B. The CONTRACTOR will designate a Subcontract Technical Representative (STR) who will be responsible for the technical aspects of the performance of the Subcontract. The STR may designate other personnel to oversee the performance of the Work, sign field tickets, etc. However, the designated STR retains ultimate authority over the technical aspects of the Work. Should the SUBCONTRACTOR and STR disagree over the technical requirements of the Subcontract, such matters will be immediately referred to the CONTRACTOR'S Subcontract Specialist for resolution. The STR does not possess authority, express or implied, to direct the SUBCONTRACTOR to deviate from the terms and conditions of the Subcontract.

SC-22 EXPENDITURE NOTIFICATION

- A. SUBCONTRACTOR shall furnish to the address below the best estimate of the total billable cost (invoiced and invoiceable) from Award of the Subcontract through the current calendar month end. This information must be submitted in writing (facsimile acceptable) no later than the 15th of each month.

Bechtel Hanford, Inc.
3350 George Washington Way
Richland, WA 99352
Attention: Cost Accounting (H0-07)
Facsimile No.: (509) 372-9009

- B. For Work performed on a unit rate basis, SUBCONTRACTOR shall notify the CONTRACTOR'S Subcontract Specialist in writing when SUBCONTRACTOR expects that in the next sixty (60) calendar days billable charges, when added to all previously billed charges, will exceed seventy five percent (75%) of the estimated Subcontract value shown in Exhibit "C." Upon expending seventy five percent (75%) of the estimated Subcontract value, SUBCONTRACTOR shall provide the CONTRACTOR'S authorized representative with weekly written summaries of billable charges, inclusive of previously billed charges.
- C. The CONTRACTOR is not obligated to reimburse the SUBCONTRACTOR for billable charges in excess of the estimated Subcontract value, as modified. The SUBCONTRACTOR is not obligated to continue performance under this Subcontract once billable charges reach one hundred percent (100%) of the estimated Subcontract value, as modified.

SC-23 PROCUREMENT INTEGRITY

- A. The SUBCONTRACTOR warrants that it is familiar with and will comply with all the requirements of Section 27 of the *Office of Federal Procurement Policy Act of 1988* (41 U.S.C. 423) as implemented in the Federal Acquisition Regulations (referred to in this clause as "the Act"), including, but not limited to: (1) prohibitions on giving or offering future employment, money, or anything of value to a procurement official; (2) prohibitions on soliciting or obtaining from an agency, before award, any proprietary or source selection information regarding the procurement; and (3) limits on participation of former government employees and officials in negotiation and performance of government contracts. For a violation of the Act, the Government may reduce the fee or profit on the contract, terminate all or a portion of the contract for default, suspend or debar the contractor from future Federal Government work, impose fines or imprisonment, or pursue other legal remedies.
- B. In addition to any other remedies provided by law or herein, the SUBCONTRACTOR agrees to indemnify and hold CONTRACTOR harmless to the full extent of any loss (including any reduction in fee or profit), damages, or expenses (including attorneys' fees) if any of the SUBCONTRACTOR'S actions, acting alone or in concert with any other person or entity, cause the Government to enforce the provisions of the Act or related regulations.
- C. The SUBCONTRACTOR agrees to include the substance of this clause, including this paragraph C, appropriately modified to reflect the identity and relationship of the parties, in all lower tier subcontracts in amounts exceeding \$100,000.00.

SC-24 WORK HOURS AND FACILITY CLOSURE DAYS

Site Work hours are in accordance with the Hanford Site Stabilization Agreement unless otherwise specified. Deviation from the approved Site Work hours shall be requested in writing from the CONTRACTOR and such approval shall not be unreasonably withheld. CONTRACTOR Work hours are from 7:00 a.m. to 4:30 p.m. Monday through Friday.

CONTRACTOR recognizes the following Facility Closure days:

New Year's Day	Labor Day
Presidents Day ¹	Thanksgiving Day
Memorial Day	Day after Thanksgiving
Independence Day	Christmas Day
Day before or after Christmas ¹	

(¹ Facility closure is not applicable to Building Trades Craft.)

SUBCONTRACTOR is responsible for contacting the Subcontract Technical Representative with support requirements on Facility Closure dates.

SUBCONTRACTOR shall take into consideration that the above work schedule may be deviated from based upon the official Department of Energy, Richland Operations Office (RL) process for declaring changes to the Hanford Site work schedule due to inclement weather conditions. SUBCONTRACTOR shall have the sole responsibility for satisfying itself concerning the general and local conditions, including, but not limited to, climatic conditions and seasons.

Notification System

The Hanford Site notification system will be used for informing all Hanford employees and Subcontractors when adverse weather conditions necessitate a site closure, delay in the start of work, or early release from work.

Most of the area radio stations are notified of work cancellation or delay before 5:00 a.m., however, to receive the most timely information, employees and Subcontractors should tune into the following Emergency Alerting System stations: Tri-Cities KONA (610 AM or 105.3 FM); or Yakima Valley's KMWX (1460 AM), or KFFM (107.3 FM). Notifications will also be provided over the Hanford radio station (530 AM). During the winter months, the Hanford Site conditions is available twenty-four (24) hours per day at **(509) 372-9002**.

Variable Conditions May Affect Site Areas Differently

Due to the size of the Hanford Site, adverse weather conditions may affect separate parts of the site differently. In these cases, the work delay/early release may only apply to those employees and/or Subcontractors working in the most affected areas. In the event a project needs an individual to be present onsite during adverse weather, CONTRACTOR shall notify SUBCONTRACTOR.

When the start of work is delayed due to inclement weather conditions, the adjusted start time is intended to give employees and/or Subcontractors adequate time to arrive at work safely. Arriving ahead of the adjusted start time could jeopardize the completion of maintenance work, and could put the employee at risk in terms of unsafe road conditions and/or unsafe walking surfaces at the work place. If a decision is made for an early release of employees and/or Subcontractors from work due to severe weather conditions, the CONTRACTOR will notify the SUBCONTRACTOR.

SC-25 WORK AND OPERATIONS AT SITE REQUIRING SPECIFIC APPROVAL

- A. Working Hours. The SUBCONTRACTOR shall not perform Work at the Jobsite on other than regular Site Work hours, unless it has given prior written notification to CONTRACTOR and has received approval in advance, as provided in this Special Condition.

The SUBCONTRACTOR shall give CONTRACTOR at least four (4) hours prior notice if its employees are to be working after the normal shift period Monday through Friday. The SUBCONTRACTOR shall give CONTRACTOR notice on the prior working day if its employees will be working before normal shift hours, Monday through Friday, or will be working at any time

SC-25 WORK AND OPERATIONS AT SITE REQUIRING SPECIFIC APPROVAL – (Continued)

on Saturday, Sunday, or holidays. The notice shall include the type of Work to be performed, location of Work, date and hours of Work, and description of any heavy equipment to be used. CONTRACTOR advance approval is required any time Work is to be performed at other than normal shift periods. Unless otherwise stipulated by SUBCONTRACTOR and approved by CONTRACTOR, all required repairs, maintenance, and decontamination shall be performed during regular Site work hours.

- B. Moving of Equipment. The SUBCONTRACTOR shall notify CONTRACTOR at least two (2) working days prior to the date it proposes to move equipment that exceeds 80,000 lbs. gross vehicle weight or requires Washington State overlength/overwidth permits, into or from the Jobsite and shall not move any such equipment into or from the Jobsite until receipt of written approval from CONTRACTOR. SUBCONTRACTOR shall obtain CONTRACTOR'S survey and release of all equipment/materials prior to movement from radiological areas in accordance with CONTRACTOR'S Radiological Control Program.
- C. Electrical System Tie-Ins and Equipment Testing. When a tie-in is required to the existing plant electrical systems the SUBCONTRACTOR shall contact CONTRACTOR at least three (3) working days prior to the desired tie-in date and shall not tie in until receipt of CONTRACTOR's approval.

After acceptance but prior to final energization, CONTRACTOR will perform certain necessary inspection and testing, not included in this Subcontract, of new service equipment and facilities.

It is intended the Electrical Utility will do special testing to establish performance and benchmark information prior to final transfer of construction for operation. These tests will normally be made subsequent to acceptance of SUBCONTRACTOR effort but before tie-ins. These tests will include high voltage D.C., test of power cables, Doble test of transformers and switchgear insulation, oil sampling, transformer turn ratio, etc.

- D. SUBCONTRACTOR shall implement and conform to the OWNER'S "Hanford Sitewide Lock and Tag Program," as stipulated under "Exhibit G, ERC Subcontractor Safety and Health Requirements, CONST-RQMT-6."

SC-26 RECEIPT OF SUBCONTRACTOR'S MATERIAL AND/OR EQUIPMENT AT SITE

SUBCONTRACTOR shall not schedule materials and/or equipment for delivery to the Jobsite until such time as it is mobilized to receive and accept property at the Jobsite. SUBCONTRACTOR shall provide written certification all materials and/or equipment brought onto the site is free from any contamination. CONTRACTOR reserves the right to perform survey of any materials/equipment for presence of hazardous or radioactive material before bringing the materials/equipment into or from the Jobsite. Any deficiencies shall be corrected or material/equipment replaced at the expense of the SUBCONTRACTOR.

SUBCONTRACTOR is not permitted to use CONTRACTOR'S mailing address and in no case shall material or equipment be addressed in care of CONTRACTOR. It is recognized that special conditions may exist that would warrant assistance in delivering equipment or materials by CONTRACTOR. However, the SUBCONTRACTOR must have explicit prior written authorization from CONTRACTOR.

SC-27 SECURITY REQUIREMENTS

SUBCONTRACTOR shall adhere to the requirements as stipulated and outlined under "Exhibit G, ERC Subcontractor Safety and Health Requirements, GR-2, Security Program."

SC-28 MEDICAL EXAMINATIONS

- A. The SUBCONTRACTOR shall endeavor to employ only those persons who are physically qualified to perform Work to which they are assigned at the Jobsite with or without reasonable accommodation. If the SUBCONTRACTOR or CONTRACTOR determines that there may be a question of the person's physical fitness to safely perform Work to be assigned, the SUBCONTRACTOR shall, with the approval of the CONTRACTOR, require such employee to undergo a medical examination.
- B. In any case where it is determined that a SUBCONTRACTOR employee is physically unable to perform the essential duties of the job, with or without reasonable accommodations, CONTRACTOR reserves the right to determine whether or not the employee may be assigned to work at the Jobsite and to determine any work assignment limitations to be imposed, and the SUBCONTRACTOR shall be responsible for enforcing CONTRACTOR's decision.

SC-29 DISPOSITION OF CONTAMINATED PROPERTY

- A. The SUBCONTRACTOR is expected to bring equipment that is readily decontaminated. However, if decontamination cannot be completed, the SUBCONTRACTOR agrees to submit to CONTRACTOR for survey any equipment, tools, or other personal property brought into any Radiological Areas by the SUBCONTRACTOR, its employees, and any of its Subtiers and their employees.
- B. Surveys for the detection of contamination (loose and fixed) will be performed immediately before removing any property from any location within the Jobsite Controlled Access Area or area specified by the CONTRACTOR. Release of equipment/material from radiological areas may require dismantlement of equipment based on the SUBCONTRACTOR'S means and methods of the equipment use. The SUBCONTRACTOR shall notify CONTRACTOR not less than two (2) working days before each property (including equipment and tools) removal.
- C. CONTRACTOR's intent is to work with the SUBCONTRACTOR to release all SUBCONTRACTOR's equipment through the efforts of equipment placement (minimization of contact) and decontamination efforts on affected equipment pieces (i.e., buckets, tracks). Because of the known inventory of constituents within the excavation areas, CONTRACTOR cannot guarantee the full release of SUBCONTRACTOR'S equipment or parts thereof.
- D. Any equipment that cannot be decontaminated or free released (radiological) in a timely manner will not be released back to the SUBCONTRACTOR and becomes the property of the CONTRACTOR without any additional compensation to the SUBCONTRACTOR, unless the SUBCONTRACTOR is approved to own/control radioactive material.

SC-30 SUBCONTRACTING PLAN

This provision applies to large businesses only when the Construction subcontract award value equals or exceeds \$1,000,000.

A Subcontracting Plan submitted and approved for this Subcontract in accordance with FAR Clause 52.219-9 - "Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan" is incorporated into this Subcontract in Exhibit "C." Failure of SUBCONTRACTOR to comply in good faith with said plan may be considered a breach and subject to termination.

Subcontracting Reports will be submitted on Standard Forms 294 and 295. In addition to the distribution contained on the reverse side of these forms, copies of these reports shall be delivered as follows:

Distribution:

1 original SF-294
1 original SF-295

1 Copy SF-294
1 Copy SF-295

Addressee:

Bechtel Hanford, Inc.
Attention: Procurement Department, H0-04
3350 George Washington Way
Richland, WA 99352

SC-31 RADIOLOGICAL CONTROLS AND PRICE ANDERSON AMENDMENT ACT

ALARA Performance

SUBCONTRACTOR shall demonstrate to CONTRACTOR that good prudent ALARA (As Low As Reasonably Achievable) work practices are developed, implemented, executed and adhered to during the SUBCONTRACTOR'S performance of work described herein the Subcontract documents. SUBCONTRACTOR shall submit an ALARA Plan to CONTRACTOR. This plan shall include "means and methods" for the execution and completion of the scope of work, additional performance criteria and measures, which ensures that the CONTRACTOR'S personnel radiological exposure threshold (total job) stipulated in the Exhibit C "Pricing and Quantities" is not exceeded. The following performance criteria shall govern the enforcement of this threshold limit:

SC-31 RADIOLOGICAL CONTROLS AND PRICE ANDERSON AMENDMENT ACT - (Continued)

SUBCONTRACTOR shall:

- Receive no performance adjustment within 1 person Rem either direction (2 person Rem range) of the established overall personnel exposure target for the total job (radiological).
- Receive positive performance adjustment for each full person Rem (or fraction thereof – minimum 25%) achieved below the lower target range as describe in Exhibit C.
- Receive performance adjustment (deduct) for each full person Rem (or fraction thereof-minimum 25%) in the amount of \$10,000.00 above the upper target range.

Price Anderson Amendment Act (PAAA)

The PAAA subjects DOE contractors, subcontractors and suppliers to potential civil and criminal penalties for violations of DOE rules, regulations and compliance orders relating to (nuclear) safety requirements. The graded approach allows grading of these controls commensurate with the hazard and risks to workers and the public, as well as other factors.

Actions that may incur PAAA initiation and enforcement include 1) compromises to work controls that ensure the quality of waste handling, site remediation and decontamination work 2) the potential to affect other systems, activities or personnel in a manner that can result in personnel exposures or spread of radioactive material 3) the release of or contamination by radioactivity, such as initiating accident, or worsening the consequences of accidents and 4) a disruption to an critical link or procedure in a sequence of activities that could cause failure to safety related processes or could lead to a radiological exposure.

As part of the CONTRACTOR's enforcement policy, CONTRACTOR has established positive incentives through the application of adjustment factors to potential damages (SUBCONTRACTOR) and through the exercise of discretion in not receiving an Notice of Violation (CONTRACTOR) in some instances, for the SUBCONTRACTOR to do the following:

- Identify safety non-compliance's in a timely manner
- Report thoroughly those non-compliance to CONTRACTOR
- Conduct a root cause analysis of non-compliance's
- Promptly and comprehensively correct safety non-compliance's in a manner and promptly effectively corrected.

PAAA determinations which involve Notices of Violation and/or fines and effect the CONTRACTOR's performance as the result of actions of the SUBCONTRACTOR and cause damage to CONTRACTOR, CONTRACTOR shall evaluate and request (seek) damages from the SUBCONTRACTOR commensurate (proportional) with the level of infraction and participation involvement (non-compliant action(s)).

SC-32 RADIOLOGICAL WORK REQUIREMENTS

To protect workers, the public and the environment from exposure to radiation or radioactive material, CONTRACTOR operates under a Radiation Protection Program (RPP) approved by OWNER. All work on this Subcontract shall be in accordance with the CONTRACTOR'S RPP, 10 CFR 835, DOE Hanford Site Radiological Controls Manual (HSRCM) and requirements stipulated in Exhibit G "ERC Subcontractor Safety and Health Requirements". Since CONTRACTOR is liable for any Price Anderson Amendment Act (PAAA) enforcement, site surveys and personnel radiological monitoring will be performed by CONTRACTOR according to CONTRACTOR'S controlling documents.

Although CONTRACTOR is accountable for PAAA compliance, SUBCONTRACTOR is responsible for conducting all work safely. This means that SUBCONTRACTOR is responsible for work methods and processes ensuring adequate assessment of radiological hazards, determination and implementation of appropriate engineering controls, determination of proper Personnel Protective Equipment (PPE) and specification of radiological hold points in accordance with work methods and processes.

SUBCONTRACTOR shall be fully responsible for ensuring that its work force including sub-tier Subcontractor(s), implements and follows radiation protection controls based on the results of the surveys and other services provided by CONTRACTOR.

SC-32 RADIOLOGICAL WORK REQUIREMENTS - (Continued)

SUBCONTRACTOR shall prepare a Radiation (ALARA) Plan (RP) and submit to CONTRACTOR for review. SUBCONTRACTOR'S RP shall specify the following, as a minimum:

- Any specific engineering and administrative controls to maintain radiation exposures and releases ALARA, with a priority on engineering and administrative controls, when feasible, over PPE.
- Requirements for minimizing the amount of material brought into radiological areas and minimization of waste generated.
- Requirements for briefing personnel on RWP's, following the requirements specified on RWP's and other means of communicating radiological controls.
- Means of limiting releases of radiological material to the environment.
- Planning and preparation for radiological operations, including radiological hold points as required based on SUBCONTRACTOR'S means and methods. The work should be "planned" such that no individual exposure will exceed 500 mrem/yr. If it becomes necessary for the safe and efficient conduct of the work to extend key personnel beyond 500 mrem per calendar year, the CONTRACTOR and SUBCONTRACTOR will work together to accomplish the task while keeping the individual exposure ALARA.
- Flowdown of radiation protection requirements to sub-tier Subcontractors.
- Handling of radioactive sources.
- Controlling the spread of airborne and surface contamination.
- Review of work in progress and evaluation of performance (post-job ALARA review) including lessons learned.
- Develop means and methods to keep personnel exposure ALARA as a primary factor and not as a secondary consideration.

SC-33 HANFORD SITE TRAINING

In the performance of the work under this Subcontract, SUBCONTRACTOR shall adhere to all the training requirements as outlined and stipulated under "Exhibit G, ERC Subcontractor Safety and Health Requirements." SUBCONTRACTOR is responsible for all labor costs for employees receiving training. Additionally, SUBCONTRACTOR will be responsible for all costs incurred by CONTRACTOR for failure to report (no shows) to any scheduled training by SUBCONTRACTOR'S personnel and lower-tiers.

SC-34 TECHNICAL DIRECTION

- A. The term "technical direction" is defined as (1) directions to the SUBCONTRACTOR, which shift work emphasis between work areas, require pursuit of certain lines of inquiry, fill in details, or otherwise serve to facilitate the Subcontract Scope of Work; (2) provision of written information to the Subcontract that assists in the interpretation of drawings, specifications or technical portions of the work description; and (3) review and approval of technical reports, drawings, specifications, and technical information to be delivered by the SUBCONTRACTOR to the CONTRACTOR under the subcontract.
- B. Technical direction must be within the Scope of Work stated in the subcontract. CONTRACTOR's Subcontract Technical Representative (STR) does not have the authority to, and may not issue any direction which; (1) constitutes an assignment outside the Scope of Work; (2) constitutes a change as defined in the Subcontract Clause GC-36 "CHANGES;" (3) in any manner causes an increase or decrease in the total estimated subcontract cost, the fixed unit rates (if any), or the time required for subcontract performance; and (4) changes any of the expressed terms and conditions.

SC-34 TECHNICAL DIRECTION - (Continued)

- C. The SUBCONTRACTOR shall proceed promptly with the performance of technical direction issued by the CONTRACTOR's Subcontract Technical Representative (STR) in the manner prescribed by this article and within the authority under the provisions of this article. If, in the opinion of the SUBCONTRACTOR, any instruction or direction by the CONTRACTOR's Subcontract Technical Representative (STR) falls within one of the categories defined in b.(1) through (4) above, the SUBCONTRACTOR shall not proceed, but shall notify the Subcontract Specialist in writing within ten (10) working days after receipt of any such instruction or direction and shall request the Subcontract Specialist to modify the Subcontract accordingly.
- D. A failure of the SUBCONTRACTOR and Subcontract Specialist to agree that the technical direction is within the Statement of Work or a failure to agree upon the contract action to be taken with respect thereto shall be subject to the provisions of the clause entitled "Disputes."

SC-35 OTHER SUBCONTRACTS

The CONTRACTOR may undertake or award other Subcontracts for additional work or services. The SUBCONTRACTOR shall fully cooperate with the other subcontractors and with CONTRACTOR employees and shall carefully adapt schedule and performance of work under this Subcontract to accommodate the additional work, and heeding any direction that may be provided by the CONTRACTOR. The SUBCONTRACTOR shall not commit any act that will interfere with the performance of work by any other subcontractor or by CONTRACTOR employees.

SC-36 INCREMENTAL FUNDING OF SUBCONTRACT

The CONTRACTOR'S obligation to pay the Subcontract price in accordance with the Special Conditions Titled "Measurement for Payment and Payment for Work," is subject to the provisions and limitations further set forth by the following. The CONTRACTOR'S obligation under this Subcontract is hereby limited notwithstanding any provision of the "Measurement for Payment and Payment for Work" section or any other section or provision of this Subcontract.

- A. Allotment of Funds: Of the total Subcontract price, only specific portions of the total amount are estimated to be available, allotted by Fiscal Year (FY) October 1st - September 30th, for this Subcontract. The estimated amount for the first Fiscal Year of the Subcontract Performance Period (FY 2000) is one million eighty thousand seven hundred and ninety-four dollars and no cents (\$1,080,794.00.) The CONTRACTOR shall not be obligated under this Subcontract to the SUBCONTRACTOR on any theory or basis for total payment in excess of total allotments up to that time. Furthermore, the SUBCONTRACTOR is not to expend any effort on work for which the CONTRACTOR has not provided the SUBCONTRACTOR written authorization to proceed.

For planning purposes, CONTRACTOR shall notify SUBCONTRACTOR of the estimated amount of funding to be available for each subsequent Fiscal Year not later than September 15th of each Fiscal Year. It is contemplated but not warranted that the full amount of estimated funds for each Fiscal Year(s) allotment will be available by October 1st, of each Fiscal Year. CONTRACTOR shall notify SUBCONTRACTOR of the exact amount of each Fiscal Year's allotment of funds as soon as such becomes known.

- B. Schedule:

- (1) The SUBCONTRACTOR agrees to schedule and perform or have performed the contract work in such a manner as to ensure that, in the event of termination of this contract occurs pursuant to Subcontract General Conditions, Clause "TERMINATION FOR CONVENIENCE," the total amount payable by the CONTRACTOR (including amounts payable in respect of subcontracts and settlement costs) would not exceed the total amount allotted at the time to the Subcontract. The CONTRACTOR shall not be obligated in any event to pay or reimburse the SUBCONTRACTOR in excess of the amount then allotted to this subcontract, anything to the contrary or any other provision of this Subcontract notwithstanding.
- (2) To insure compliance with the requirements of subparagraph B. (1) above, all schedules required elsewhere in this Subcontract shall relate to and describe the SUBCONTRACTOR'S proposed plan for performance of Work and representation of Work actually performed to the amount then allotted to this Subcontract. Furthermore, SUBCONTRACTOR shall schedule and relate planning for future performance of Work to the table of estimated allotments to this Subcontract set forth in subparagraph A. above.

SC-36 INCREMENTAL FUNDING OF SUBCONTRACT – (Continued)

- C. Notices - Actions When Costs Approach Total Amounts Allotted: Until such time as the CONTRACTOR has allotted funds up to the full Subcontract price, including any adjustments thereto, the SUBCONTRACTOR shall notify the CONTRACTOR, in writing thirty (30) days in advance of the point when, if termination of this Subcontract occurs pursuant to the article hereof entitled "TERMINATION FOR CONVENIENCE," the total amount payable by the CONTRACTOR (including amounts payable in respect of subcontracts and settlement costs) will approximate eighty-five percent (85%) of the total amount then allotted to the Subcontract. Upon receipt of such notice, the CONTRACTOR may take one of, or a combination of, the following actions:
- (1) Instruct the SUBCONTRACTOR to continue performance of the Subcontract to the extent permitted by the amount of funds then allocated to this Subcontract;
 - (2) Increase the amount of funds allotted to the Subcontract and instruct the SUBCONTRACTOR to proceed with work not previously funded;
 - (3) Order the SUBCONTRACTOR to suspend all or any part of the work in accordance with Subcontract General Conditions Titled, "SUSPENSION." If the suspension of work has resulted from the failure of the SUBCONTRACTOR to schedule and perform the Subcontract work in accordance with the provisions of subparagraph C above, the SUBCONTRACTOR shall not be entitled to an equitable adjustment in Subcontract price nor time, nor shall the costs of the suspension be allowable in any subsequent termination of the Subcontract for the convenience of the CONTRACTOR, irrespective of the provisions of the General Conditions Titled "SUSPENSION," "TERMINATION FOR CONVENIENCE" article, or any other section or provision of the Subcontract; or
 - (4) Terminate the performance of all or part of the work under this Subcontract in accordance with the "Termination for Convenience" section; or
 - (5) Direct the SUBCONTRACTOR to take such action as is agreed by the parties in writing to be appropriate under the circumstances (provided such action does not exceed the total funds then allotted).
- D. SUBCONTRACTOR Excused From Further Performance: Before the allotment of funds up to the total Subcontract price (including any adjustments thereto), when the SUBCONTRACTOR'S performance has reached the point at which, including costs payable pursuant to the provisions of the General Conditions Titled, "TERMINATION FOR CONVENIENCE," the total amount payable by the CONTRACTOR would equal one hundred percent (100%) of the amount then allotted to this Subcontract, the SUBCONTRACTOR shall immediately notify the CONTRACTOR and shall make no further commitments or expenditures (except to meet existing commitments and liabilities). The CONTRACTOR shall not be obligated to pay the SUBCONTRACTOR an amount in excess of the total amount then allotted to the Subcontract. If additional funds are not allotted by the date set forth in subparagraph A. above or such later date as may be agreed to by both parties, the SUBCONTRACTOR shall not be obligated to continue performance under this Subcontract and the CONTRACTOR will, upon written request of the SUBCONTRACTOR, terminate the Subcontract pursuant to the provisions of the "TERMINATION FOR CONVENIENCE" article, provided, however, that in no event shall the CONTRACTOR be obligated to pay or reimburse the SUBCONTRACTOR in excess of the amount then allotted to this Subcontract.
- E. If the SUBCONTRACTOR incurs additional costs or is delayed in the performance of the work under this Subcontract solely by reason of the failure of the CONTRACTOR to allot additional funds in accordance with the subparagraph A. above and if additional funds are allotted, equitable adjustments shall be made in Subcontract price and performance time.
- F. The CONTRACTOR may at any time before termination, and with the consent of the SUBCONTRACTOR after notice of termination, allot additional funds to this Subcontract.
- G. Nothing in this clause shall affect the right of the CONTRACTOR to terminate this Subcontract pursuant to the article of this Subcontract entitled "Termination for the Convenience of the Government (Fixed Price) Apr 1984)."

SC-36 INCREMENTAL FUNDING OF SUBCONTRACT – (Continued)

- H. Change Orders: Changes issued pursuant to Subcontract General Conditions Titled, "CHANGES," shall not be considered authorization for the SUBCONTRACTOR to exceed the amount allotted to this Subcontract in the absence

of a statement in the Change Order, or other written notice to the SUBCONTRACTOR, increasing the amount allotted to this Subcontract.

SC-37 CULTURAL ECOLOGICAL RESOURCES AWARENESS

SUBCONTRACTOR shall comply with the provisions of the Native American Graves Protection Act 25 USC 3001-3013. This act establishes statute provisions for the treatment of Native American remains and cultural objects. If during the performance of this Subcontract, SUBCONTRACTOR discovers Native American remains and/or cultural objects, SUBCONTRACTOR shall immediately cease work in the affected work area, take reasonable efforts to protect the items discovered, and notify the CONTRACTOR'S Subcontract Technical Representative (STR).

Cultural resources are known to exist on the Hanford Reservation. The SUBCONTRACTOR shall use previously disturbed areas, whenever possible, while conducting work activities. The SUBCONTRACTOR shall also ensure workers are trained to recognize culturally significant resources. CONTRACTOR provides a one (1) hour training class for SUBCONTRACTOR employees. SUBCONTRACTOR is responsible for all labor costs associated with this training. All workers shall be directed to visually inspect for cultural resources during all work activities, particularly in undisturbed areas. If any cultural resources are encountered, work in the vicinity of the discovery shall be suspended immediately. In the event of any such discoveries, the SUBCONTRACTOR shall immediately notify the CONTRACTOR'S onsite representative.

All ground disturbing work requires a current ecological review by the CONTRACTOR. If no nesting birds or other sensitive species are identified in the proximity of the excavation area, work can proceed. If evidence of a curlew nest or other species are found, the SUBCONTRACTOR'S work may proceed at a location away from the nest location depending on site conditions, upon approval from the CONTRACTOR, at no additional cost or schedule extension to the CONTRACTOR.

SC-38 YEAR 2000 COMPLIANCE

SUBCONTRACTOR warrants that any computer product, application or system provided hereunder ("Product") is Year 2000 Compliant. As used in this warranty, the term "Year 2000 Compliant" means that the Product, when configured and used according to the documented instructions, will, without manual intervention or interruption:

- A. Correctly handle and process date information before, during and after January 1, 2000, accepting date input, providing date output and performing calculations, including but not limited to sorting and sequencing, on dates or portions of dates;
- B. Function according to the documentation during and after January 1, 2000 without changes in operation resulting from the advent of the new century;
- C. Where appropriate, respond to two-digit date input in a way that resolves any ambiguity as to century in a disclosed, defined and predetermined manner;
- D. Store and provide output of date information in ways that are unambiguous as to century, and;
- E. Manage the leap year occurring in the year 2000, following the quad-centennial rule. The "quad-centennial rule" means (a) if the year is divisible by 4, it is a leap year, unless (b) the year is also divisible by 100, then it is not a leap year, unless (c) the year is also divisible by 400, then it is a leap year.

SUBCONTRACTOR also warrants that the production/manufacture, transportation and delivery of any goods, specifications, drawings, studies or any other segment of the work to be supplied hereunder will be Year 2000 Compliant and will not be materially adversely impacted as a result of any failure to be Year 2000 Compliant.

Source of Definition: British Standards Institute

SC-38 YEAR 2000 COMPLIANCE - (Continued)

Note: CONTRACTOR may, at its option, accept a definition of "Year 2000 Compliant" that is the substantive equivalent of the definition above.

SC-39 MEASUREMENT SYSTEM

SUBCONTRACTOR shall use the Metric system of measurement for all designs, specifications, drawings, plans and work except as otherwise directed in writing by CONTRACTOR.

SC-40 MODIFICATIONS TO EXHIBIT "G"

The following modifications are applied to Exhibit "G" of this Subcontract and incorporated herewith:

INTRODUCTION (incorporate new first paragraph, page 3 of 34)

The requirements of this document are based on current conditions and/or operations in areas of the planned project. This document is to be used to assist SUBCONTRACTOR in understanding the environment, safety and health requirements of a specific project. This document does not relieve SUBCONTRACTOR of the requirement to plan for or provide a safe Work Site. This document does not relieve SUBCONTRACTOR or its sub-tier Subcontractor(s) from recognizing and complying with applicable local, state and federal regulations. For the purpose of this Subcontract, the term "safety" encompasses Environmental, Safety & Health (ES&H), including pollution prevention and waste minimization. The term "personnel" includes both SUBCONTRACTOR and its sub-tier Subcontractors' personnel.

Continue with "The "Subcontractor Safety and Health Requirements".....CONTRACTOR."

GR-1 SAFETY MANAGEMENT SYSTEMS (ISMS) - Incorporate the following after Item No. 6, page 5 of 34

.....of safety management.

Required Minimum Documentation-available for CONTRACTOR review:

- Integrated Safety Management System (ISMS) Matrix – Form Appendix G-1 (Attached)

GR-7 REPORTING ACCIDENTS AND INCIDENTS (Incorporate second paragraph to Section A., page 12 of 34)

.....Part 1904.

SUBCONTRACTOR shall maintain accurate accident and injury/illness logs, and upon request, furnish CONTRACTOR'S Subcontract Technical Representative (STR) on a monthly basis, a summary (First Aid and OSHA 200) of injuries/illnesses and the total number of respective work hours. SUBCONTRACTOR is required to submit the same required information for its sub-tier Subcontractor(s). The monthly report (pertaining to the previous months' activities) of all accidents or injuries/illness shall be completed on or before the third working day of each month. The monthly logs are required throughout the duration of the Subcontract, including periods of no work activity. If the duration of Work does not exceed one month, the accident and injury/illness logs shall be submitted upon completion of the Work.

(Delete Item No. C and replace with the following, page 12 of 34)

- C. The following events shall be investigated, documented and reported on SUBCONTRACTOR'S incident/investigation form (Contractor acceptance required) or utilize Appendix G-2.1 (minimum attached) and submit to CONTRACTOR:

(Items 1 through 6 remain as listed: 1. Deaths.....
6. spills.

SC-40 MODIFICATIONS TO EXHIBIT "G" - (Continued)

Delete the "Required Minimum Documentation" and incorporate and replace with the following:

"Required Minimum Documentation-available for CONTRACTOR review:

- Monthly injury/illness reports shall be maintained at the Jobsite and submitted to the Contractor upon request – Form Appendix G-2.

- Information reporting for injury/illness shall be maintained at the Jobsite and submitted to the Contractor upon request – Form Appendix G-2.1”

HAZ-RQMT-1 GENERAL - incorporate new first paragraph, under Section G, page 24 of 34 with the following:

Work on this Subcontract will be performed according to CONTRACTOR’S Radiological Protection Program (RPP). To ensure that the requirements of the RPP are met, CONTRACTOR will provide radiological support services, including the services of RCT’s to perform surveys and monitoring, coordinate dose assessments, identify radiological areas, and prepare RWP’s.

The CONTRACTOR’S Radiological...

HAZ-RQMT-8 TRAINING - Delete the “Required Minimum Documentation” and incorporate and replace with the following:

Required Minimum Documentation-available for CONTRACTOR review:

- Documentation to support that SUBCONTRACTOR and LOWER TIER SUBCONTRACTOR personnel working on site have completed the appropriate Training/Medical Surveillance Certification for the type of work being performed – Form Appendix G-3.

Incorporate as an attachment to Exhibit G, Foster Wheeler Environmental Corporation’s Form J (J-10), “Safety Performance Program,” pages J-37 through J-48.

SC-41 MODIFICATIONS TO EXHIBIT "A"

The following modifications are applied to Exhibit "A" of this Subcontract and incorporated herewith:

- A. Article GC-11, “TAXES,” is hereby modified to add the following:

Washington State B&O Tax

“For the purpose of defining Washington State business and occupation (B&O) tax, CONTRACTOR recognizes that the tax classification established by Revised Code of Washington (RCW) 82.04.263 may be applicable to the performance of all Work of this Subcontract.”

Washington State Sales Tax

“For purposes of defining Washington State sales tax, CONTRACTOR recognizes that effective July, 1998 until July 1, 2003, the Washington State sales tax on “retail sale” and “sale at retail” shall not include the sale of or charge made for labor and services rendered for environmental remedial action. During the 1998 Washington State legislative session, the legislature passed Substitute House Bill 2051 providing tax relief to contractors involved in environmental remedial action as defined in the Act. In order to gain eligibility for tax relief, the United States Department of Energy filed a certification with the State. The State provided a letter to be used as a sales tax exemption certificate for labor and services provided in the course of conducting environmental remedial action at the Hanford Reservation. A copy of that exemption certificate will be furnished upon request.”

Subcontractor will include the above language related to Washington State Sales Tax and Washington State B&O Tax in all sub-tier subcontracts and purchase orders.

SC-41 MODIFICATIONS TO EXHIBIT "A" - (Continued)

- B. Article GC-20, "SURVEY CONTROL POINTS AND LAYOUTS" is deleted in its entirety and modified to read:

Existing survey control points, as shown on the Project Drawings by the CONTRACTOR, have been previously established. Survey control points for Issued for Construction Drawings shall be established, or existing points verified, by the SUBCONTRACTOR.

SUBCONTRACTOR shall complete the layout of all Work and shall be responsible for all requirements necessary for the Work execution in accordance with the locations, lines, and grades specified or shown on the Issued for Construction Drawings, subject to modifications as CONTRACTOR may require as Work progresses.

If SUBCONTRACTOR or any of its lower-tier subcontractors or any of their representatives or employees move or destroy or render inaccurate any survey control point, such control point shall be replaced by SUBCONTRACTOR at SUBCONTRACTOR'S expense. No separate payment will be made for survey Work performed by SUBCONTRACTOR.

- C. Article GC-23, "COOPERATION WITH OTHERS" is hereby modified to add the following:

In regards to the requirements where specified that the SUBCONTRACTOR shall allow a continuous turnaround of available containers from the waste disposal facility, steel and hard debris are disposed at a container ratio of 8 soil containers to 1 debris container (e.g., steel, pipe, structural components, valves). SUBCONTRACTOR shall consider the CONTRACTOR'S disposal requirement (programmatic) for disposal (at ERDF) of large or metal debris. Disposal requirements stipulate a ratio of containers with soil and those with pipe (or debris) cannot exceed an 8:1 ratio (8 containers with soil, 1 container with pipe).

- D. Article GC-24, "ENVIRONMENTAL CONDITIONS" is deleted in it's entirety and modified as follows:

The SUBCONTRACTOR shall submit an Environmental Compliance Plan for CONTRACTOR review and approval in accordance with Exhibit "A", GC-24, ENVIRONMENTAL CONDITIONS of the Subcontract Document. The Plan shall describe the SUBCONTRACTOR's system to comply with and implement applicable environmental requirements, including management of waste generated as part of the services provided under this Subcontract. The CONTRACTOR reserves the right to audit the SUBCONTRACTOR's environmental and waste management records and work activities. As a minimum, the SUBCONTRACTOR's Environmental Compliance Plan shall address the applicable requirements identified in GC-51 and GC-53.6, describe how the SUBCONTRACTOR will meet these general environmental requirements, and describe how the SUBCONTRACTOR will address the following:

- 1) Waste Management, including identification of all waste streams; special handling requirements (e.g., for asbestos, PCBs); minimization of dangerous, radioactive, or mixed waste; necessary sampling or analyses; recycling, treatment and disposal requirements; facilities, packaging, loading, and transportation requirements; and personnel qualifications and training programs.
- 2) Air quality compliance, including necessary monitoring, sampling and analyses; and minimization of fugitive dust emissions during operations.
- 3) Water quality protection, including preventing discharge of contaminated or uncontaminated liquids (including decontamination water) to the soil column, except as specifically approved in writing by the Contractor; identification of potential sources of pollution that may affect the quality of storm- water discharges associated with any activity; practices to reduce pollution in storm-water discharges associated with activities; and design of domestic waste-water facilities in accordance with WAC 173-221.
- 4) Environmental reporting, spill response, and environmental record keeping, including prevention of spills or releases to the environment; and immediate notification to CONTRACTOR of any accidental spills or unplanned release of hazardous material, regardless of quantity.

SC-41 MODIFICATIONS TO EXHIBIT "A" – (Continued)

- 5) Protection of natural resources and historic and cultural resources, including minimization of impacts; assurance that SUBCONTRACTOR personnel are alerted to the potential presence of cultural materials; work stoppage immediately upon encountering cultural materials (e.g., bones, stone tools), with immediate notice to CONTRACTOR; and process to identify options to continue work in unaffected areas while CONTRACTOR assesses significance of find and arranges for mitigation (if necessary). Work shall resume only upon receipt of instructions from CONTRACTOR.
- 6) Notification to CONTRACTOR immediately upon discovery of any previously unsuspected contamination; or upon development of any condition that impacts the environmental compliance status of the site or of SUBCONTRACTOR'S activities.
- 7) SUBCONTRACTOR'S erosion and run-on/run-off control section of the Environmental Compliance Plan that addresses maintaining the excavation in a de-watered condition, preventing materials from reaching Columbia River, and providing stormwater control consistent with the Hanford Stormwater NPDES Permit.

E. Article GC-49, QUALITY ASSURANCE PROGRAM is deleted in its entirety and modified as follows:

The SUBCONTRACTOR's Quality Assurance program shall conform to 10 CFR 830.120. In addition, the Quality Assurance program shall be submitted for CONTRACTOR's review and approval in accordance with Exhibit "I", "Subcontractor's Submittal Requirements Summary", of the Subcontract Documents.

The CONTRACTOR reserves the right to audit the SUBCONTRACTOR project quality assurance programs records and work activities, at any time; and the SUBCONTRACTOR shall report and correct any deficiencies.

As a minimum, the following areas shall be discussed in the Subcontractor Quality Assurance Program:

PROGRAM ELEMENTS

1. Quality Management Program: A written Quality Assurance Program (QAP) shall be developed, implemented, and maintained. The QAP shall describe the organizational structure, functional responsibilities, levels of authority, and interfaces for those managing, performing and assessing the work. The QAP shall describe management processes, including planning, scheduling, and resource considerations.
2. Quality Training & Qualification: Personnel shall be trained and qualified to ensure that they are capable of performing their assigned work. Personnel shall be provided continuing training to ensure that job proficiency is maintained.
3. Quality Improvement: Processes to detect and prevent quality problems shall be established and implemented. Items, services, and processes that do not meet established requirements shall be identified, controlled, and corrected according to the importance of the problem and the work affected. Correction shall include identifying the causes of problems and working to prevent recurrence. Item characteristic, process implementation, and other quality-related information shall be reviewed and the data analyzed to identify items, services, and processes needing improvement.
4. Documents & Quality Records: Documents shall be prepared, reviewed, approved, issued, used, and revised to prescribe processes, specify requirements, or establish design. Records shall be specified, prepared, reviewed, approved, and maintained.
5. Work Processes: Work shall be performed to established technical standards and administrative controls using approved instructions, procedures, or other appropriate means. Items shall be identified and controlled to ensure their proper use. Items shall be maintained to prevent their damage, loss, or deterioration. Equipment used for process monitoring or data collection shall be calibrated and maintained.

SC-41 MODIFICATIONS TO EXHIBIT "A" - (Continued)

6. Design/Drawings/Submittals: Designs, shop drawings and document submittals describing work practices and controls shall be developed using sound engineering/scientific principles and appropriate standards. Design, shop drawing and work process development, including changes, shall incorporate applicable requirements and design bases. Design and work process interfaces shall be identified and controlled. The adequacy of design and document products shall be verified or validated by individuals or groups other than those who performed the work. Verification and validation of work shall be completed before approval and implementation. Documents shall describe controls to be implements for computer software management that includes software development, documentation, testing, and configuration control.
7. Procurement: Procured items and services shall meet established requirements and perform as specified. Prospective suppliers shall be evaluated and selected on the basis of specified criteria. Processes to ensure that approved suppliers continue to provide acceptable items and services shall be established and implemented.
8. Inspections and Tests: Inspection and testing of specified items, services and processes shall be conducted using established acceptance and performance criteria. Equipment used for inspections and tests shall be calibrated and maintained.
9. Management Assessment: Managers shall assess their management processes. Problems that hinder the organization from achieving its objectives shall be identified and corrected.
10. Independent Assessment: Independent assessments shall be planned and conducted to measure item and service quality, to measure the adequacy of work performance, and to promote improvement. The group performing independent assessments shall have sufficient authority and freedom from the line to carry out its responsibilities. Persons conducting independent assessments shall be technically knowledgeable in the areas assessed.

F. Article GC-51, LAWS, REGULATIONS, AND DOE DIRECTIVES is hereby modified to delete section (b) in its entirety and replace as follows:

- (b) The SUBCONTRACTOR'S Employee Concerns Program shall conform to DOE Order 442.1 Employee Concerns Program. The CONTRACTOR reserves the right to audit the SUBCONTRACTOR'S Employee Concerns Program for compliance and implementation at any time. As directed by CONTRACTOR, the SUBCONTRACTOR shall report and correct any deficiencies as deemed necessary.

As a minimum, the following areas shall be addressed in the SUBCONTRACTOR'S employee concern program. SUBCONTRACTOR shall establish an Employee Concerns Program (EPC) that ensures employee concerns related to such issues as the environment, safety, health, and management of SUBCONTRACTOR'S programs and facilities are addressed through:

- a. prompt identification, reporting and resolution of employee concerns regarding site facilities or operations in a manner that provides the highest degree of safe operations;
- b. free and open expression of employee concerns that results in an independent, objective evaluation;
- c. supplementation of existing processes with an independent avenue for reporting concerns;
- d. employees are encouraged to first seek resolution with the first line supervisors or through existing complaint or dispute resolution systems, but that they have the right to report concerns through the DOE ECP; and
- e. management's intolerance for reprisals against or intimidation of employees who reported concerns.

In support of the effective implementation of the Employee Concerns Program, SUBCONTRACTOR is required to:

- a. assist OWNER and CONTRACTOR in the resolution of employee concerns in a manner that protects the health and safety of both employees and the public and ensures effective and efficient operation of CONTRACTOR related activities under their jurisdiction;

SC-41 MODIFICATIONS TO EXHIBIT "A" - (Continued)

- b. ensure that SUBCONTRACTOR and lower-tier Subcontractor employees, vendors/visitors are advised that they

have the right and responsibility to report concerns relating to the environment, safety, health, or management of CONTRACTOR related activities; and

- c. cooperate with assessments used to verify that they have acted to minimize, correct, or prevent recurrence of the situation that precipitated a valid concern.

SC-42 CONTINUITY OF SERVICES

The SUBCONTRACTOR recognizes that the services performed under this Subcontract are vital to the OWNER and must be continued without interruption, and that, upon expiration of the Prime Contract between the OWNER and the CONTRACTOR, a successor, either the Government or another Contractor, may continue to require that the services be performed. The CONTRACTOR shall provide a sixty (60) day written notice to the SUBCONTRACTOR once the successor has been named. The SUBCONTRACTOR shall work with the OWNER and the CONTRACTOR to ensure an efficient transfer to the successor is made.